

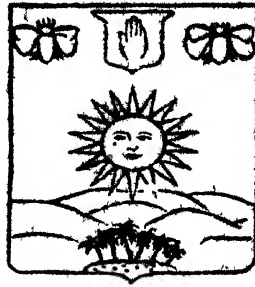
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BULLETIN
OF THE
DECCAN COLLEGE
RESEARCH INSTITUTE



1943-44

Volume V

POONA

SUKTHANKAR MEMORIAL VOLUME

*Bulletin of the
Deccan College Research Institute*

V. S. SUKTHANKAR MEMORIAL VOLUME

21ST JANUARY 1944

EDITED BY

V. M. Apte

H. D. Sankalia

DECCAN COLLEGE
Postgraduate and Research Institute
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Dr. V. S. Sukthankar, M.A., PH.D.
General Editor of the Critical Edition of the Mahabharata.
4th May 1887] [21st January 1943
(Through the Courtesy of Prof. D. D. Kosambi.)

FOREWORD

The present volume of the Bulletin, which is the fifth of its series, is intended to commemorate the connection of the late Prof. Dr. V. S. SUKTHANKAR with the Deccan College Postgraduate and Research Institute. He was a member of the College Reorganisation Committee and of the first Council of Management of the Institute ; he was also the man who made the publication of the Bulletin even during the first year of the life of the Institute possible. In complying with the request of the Editors to contribute a Foreword to the volume, I may at the very outset, remark that the hopes expressed in the Foreword to the first volume written by my predecessor in office have been largely fulfilled during the last five years, and the Bulletin has now established itself as an important research publication in this country, giving in a short compass the nature and amount of research undertaken by the Institute.

It is not necessary for me here to deal with the scholarly achievements of the late Dr. SUKTHANKAR. These are well known. They have inspired the present volume, as they also inspired much of the research work undertaken by the Institute. The fact that the Sukthankar Memorial Edition Committee, organised in Poona, is bringing out a complete edition of all his published writings in two volumes is in itself the best proof of the esteem in which he was held, and also of the universal sense of loss caused by his sudden and unexpected demise to the world of scholarship. That the present volume was conceived and completed within less than a year is an indication of the inspiration and enthusiasm which he had communicated to the staff and students of this Institute ; and it is a matter for congratulation that this Institute is the first among the Institutes of its kind to pay its tribute to his work in this concrete form.

The chief merit of the present volume lies in the fact that the contributions are all connected with the study of the Great Epic of India, of which the first critical edition was almost half completed under the general editorship of Dr. SUKTHANKAR. In his statement regarding the progress of the critical edition read by the General Editor on 6th July 1940, Dr. SUKTHANKAR had referred to many other subsidiary undertakings

carried out by different scholars, in different places, to some extent independently of the Bhandarkar Oriental Research Institute, and also to several other studies of minor importance arising out of the critical edition. If he were alive today he would have rejoiced to see a volume like this, one of the many fruits of his colossal work on the great Epic to which he devoted, with a singleness of purpose and with unrivalled mastery, more than seventeen years of his life. It is, therefore, in the fitness of things that the present volume of studies should be offered as a tribute to the memory of this great scholar, the highest possible tribute that any Institute can offer.

To those connected with the management of the Institute there is still another aspect which appears significant. The principal object of the Institute is the conduct of co-ordinated research projects by the staff and students of the various departments. This Memorial Volume of the Bulletin was planned towards the close of January 1943 and executed within a year, the only condition being that all contributions must have some bearing on the critical edition. That the entire plan should have been co-ordinated and successfully concluded, maintaining the high level of scholarship that was expected from all the members of the staff, in addition to the normal research projects which had already been planned and put into execution, is proof that the work of the Institute is progressing rapidly in the right direction. It is to be hoped that this first co-operative project will bear fruit in wider fields and establish a unique tradition associated with the name of the Institute.

In conclusion I wish to congratulate the contributors on the excellence of their papers, and the Editors of this Volume, Drs. V. M. APTE and H. D. SANKALIA, for the efficient manner in which they have completed their task.

BOMBAY :
3RD NOVEMBER 1943.

B. J. WADIA.

Avant-propos

When on 21st January 1943, Death laid its icy hand on the mortal frame of Dr. V. S. SUKTHANKAR, not only did his family suffer a sad bereavement, not only did Research Institutes like the Bhandarkar Oriental Research Institute and the Deccan College Postgraduate and Research Institute in his home province lose 'a guide, philosopher and friend' but Indian scholarship also was shocked by the passing away of a 'Critical Editor' whose labours helped to raise its international status, and the world mourned the disappearance of an Indologist of almost 'Epic' fame. Well might one reproach Remorseless Fate (in the words of the great Kālidāsa): 'In snatching him away, what, indeed, hast thou not robbed us of?'

Karuṇā-vimukhena mṛtyunā haratā tam vada kim . . . na hṛtam.

But moping did nobody any good and the tears of the dear ones but injure the *preta* :

Svajanā'sru kilāṭisaṃtatam dahati pretam iti pracakṣate.

Death should have no sting for the true philosopher whose duty on such occasions is to concentrate his attention on the preservation of the "Famebody" (*yaśaḥ-śarīra*) which Illustrious Ones like SUKTHANKAR leave behind them. It was in this spirit that, at the Condolence Meeting held on 23rd January 1943, the following resolution was placed on record :

The sudden and tragic demise on 21st January 1943 of Dr. V. S. SUKTHANKAR has removed a figure of international reputation from the world of scholars. The loss is almost irreparable and particularly so to India, as it was the Critical Edition of the Mahābhārata on which he was engaged for the last 17 years and which he had made his life-work which helped to put India on the map of the scholarly world. He was connected in one capacity or another with several learned Societies, Academies and Research Institutions in Europe, America and India—he was incidentally the second Indian to be elected Honorary Member by the American Oriental Society—but with the Deccan College Post-graduate and Research Institute he was closely connected in more capacities than one, as Member of the Reorganization Committee, Member of the first Council of Management and the Committee of Direction.

The Staff of this Institute have, therefore, decided to pay their humble tribute to the memory of the departed Savant by bringing out the fifth volume of its *Bulletin* as a Memorial Volume in his honour on the first anniversary of his death.

At the instance of the Director who moved the above resolution, the undersigned agreed to edit this Volume, which, in the fitness of things should be devoted mainly to Mahābhārata Studies. The reasons for this thematic uniformity should be obvious. It is true that Dr. SUKTHANKAR was a versatile Indologist. He had all the natural gifts and acquired attainments which enabled him to excurse into and dominate many fields of research and *he adorned whatever he touched*. He gave ample evidence, for example, of his special aptitude and training in philology and linguistics which continued to be his favourite subjects until he switched on to the Mahābhārata. His inquiring gaze was also directed to special objectives in the field of palæography, epigraphy, archæology and Sanskrit literature—objectives which he held with a masterly eye. Nevertheless, it must be said that it was a wise Providence that decreed on August 4, 1925, that thereafter his life be dedicated to the organization of that great project of national—nay, international—importance, namely the preparation of a Critical Edition of the Mahābhārata, the solid foundations whereof were laid by the publication of the completed Ādiparvan with the Prolegomena, which was hailed by WINTERNITZ in 1934 as ‘the most important event in the history of Sanskrit philology since the publication of MAX MÜLLER’S edition of the R̥gVeda with Sāyana’s Commentary.’ There were certain qualities that pre-eminently fitted him for this great undertaking, such as his passion for the application of scientific methods, his objectivity of approach, critical acumen, attention to details, precision and economy of words, his punctiliousness about the typography and get-up of a book and his fastidiousness about its correct printing and proper appearance generally. It is again significant that he made his *debut* in research in 1914 with a Doctorate dissertation, connected with a Critical Edition of Śākaṭāyana’s Grammar (I.1) with the Commentary *Cintāmaṇi* and that the Master who initiated him into the science of text-criticism was Prof. HEINRICH LÜDERS who declared, with reference to the completed Ādiparvan in 1933, that though the number of his pupils was legion, not one had *such* brilliant work to his credit. *The Mahābhārata work to which he dedicated the last 17 ripe years of his life may therefore be said to be his life-work*. His single-minded devotion and complete identification with this task can be gauged by the well-known fact that though he lived all these years in Poona, he was almost unknown to the social circles of that city. To conclude, then, his *magnum opus* was his work on the Critical

Edition of the Great Epic, including the series of papers such as Epic Studies, Epic Questions and the like in which he examined in great detail various related problems.

Arrangements have now been made at the Bhandarkar Oriental Research Institute to carry on the work of the Critical Edition where he left it, and we have no doubt that the hope expressed by Dr. SUKTHANKAR in his last public utterance in Poona on 5th January 1943 will be fulfilled. But the title : ' A Three-Dimensional View of the Great Epic ', of the lectures he was delivering before the University of Bombay in the beginning of 1943, and in the midst of which he died, was very significant and shows that the *corpus* of the Mahābhārata was not his only interest though he found very little time for anything else till then, and that he was proposing to take up (in what leisure he could spare) the work of higher text-criticism or the task of interpreting the soul of the Epic also.

It is here that scholars all the world over can step in and continue his good work. It is our earnest hope, therefore, that students of Sanskrit literature, linguisticians, archæologists, historians, sociologists and philosophers will continue to exploit the *firm* material presented by the Critical Edition of the Great Epic with all the greater enthusiasm now, since they are no longer exposed to the risk of having to base their conclusions on the shifting sands of any uncritical and multiple text of the Mahābhārata.

The present Memorial Volume is a modest attempt in this direction as will be seen from an analysis of its contents : they cover a few aspects of the lower and some aspects of the higher text-criticism of the Great Epic. Readers will find, for example, a statistical and critical study of some literary and linguistic material (comprised in the constituted text of the Critical Edition and the variants recorded in the critical apparatus), descriptive and palæographic notes on some manuscripts (new and old), general studies of the sociological, iconographical, mythological, philosophical and geographical data in the Great Epic, literary surveys illustrative of the influence of the Mahābhārata on post-epical literature as evidenced by citations from and summaries of the work ; and finally accounts of some early Persian and Arabic versions of the Great Epic, revealing the catholicity of Islamic Culture which interested itself in the literary heritage of India *long before the Muslims came into direct physical contact with the country after its invasion.*

Now to the pleasant task of acknowledging the help rendered in the preparation of this Memorial Volume. The Authorities of the Bhandarkar Institute have laid us under deep obligation by allowing us to include the very valuable article by Professor EDGERTON of Yale University, which was to form part originally of his Introduction to the *Sabhāparvan* critically edited by him. Dr. S. K. BELVALKAR, the present General Editor, deserves our thanks for kindly giving us in advance the printed formes of *Sabhā* for consultation.

Our grateful thanks are due to Mr. B. J. WADIA, the Vice-Chancellor of the University of Bombay and the Chairman of our Council of Management, for sparing time from the all-too crowded routine of a strenuous life to write a graceful Foreword, and to Dr. S. M. KATRE, the Director, for facilitating our editorial work in all its stages by his unfailing help and co-operation. The ready response of the various contributors considerably lightened our task and it is to their enthusiasm and hard work that we owe the timely and appropriate publication of the Volume today, the first anniversary of Dr. SUKTHANKAR's death. The burden of our editorial duties was lightened to a great extent by the very willing help rendered from time to time by Dr. Mrs. Iravati KARVÉ and Mr. C. H. SHAIKH, our Readers in Sociology and Semitics respectively. In conclusion it is only fair to add that the Manager of the Government Central Press and his Staff deserve our warmest thanks for enabling us to bring out this Volume punctually in spite of the short time at their disposal, because in this particular case, the time of its publication was as much of the essence as the contents of the Volume.

V. M. APTE

H. D. SANKALIA

21ST JANUARY 1944.

VISHNU SITARAM SUKTHANKAR

AND

HIS CONTRIBUTION TO INDOLOGY

Very little is on record regarding the life of Vishnu Sitaram SUKTHANKAR. The present essay perhaps anticipates a little the detailed and critical literary biography promised to us by the Sukthankar Memorial Edition Committee along with a complete reissue of all his published writings ; ¹ but in this labour of love the writer has to depend almost entirely on the published work of SUKTHANKAR and some of the unpublished material which he had the good fortune of being shown both by SUKTHANKAR and his heirs later.²

Any visitor to the Mahābhārata Department of the Bhandarkar Oriental Research Institute in Poona will be as much impressed by the two handsome bound volumes containing all the published reviews in English, French, German and Italian, and a number of Indian languages as well, of SUKTHANKAR's great work on the critical edition, as by the silent but efficient work of the department which SUKTHANKAR organised during the very first year when he assumed charge of the General Editorship of this colossal undertaking. But these reviews and notices touch only one side of his deep and extensive scholarship : the final phase, as it were, of a continuous life of scholarship and active research. This final phase of more than seventeen years of single-minded devotion and whole-hearted dedication to the cause of the Great Epic was a fitting conclusion to a full life given over entirely to Indological research.

We must be thankful to an old custom in the German Universities for a brief account of SUKTHANKAR's early life. This custom requires every candidate for the degree of Doctor of Philosophy to append to his thesis

¹ Cf. the Appeal issued by this Committee.

² The writer would like to express here his thanks to Mrs. Malinibai SUKTHANKAR and the two sons of Dr. SUKTHANKAR for the facilities given to him to examine SUKTHANKAR's *Nachlass*. He is also indebted to Professors P. K. GODE and D. D. KOSAMBI for the help they have given him in supplying their own copies of SUKTHANKAR's inscribed reprints, for reference.

his *Lebenslauf*, a short account of himself up to the period of submitting his dissertation. According to his own statement contained in his *Lebenslauf*,³ SUKTHANKAR was born on 4th May 1887 in Bombay as son of Engineer Sitaram Vishnu SUKTHANKAR and his wife Dhaklibai; he studied up to high-school standard in Bombay and proceeded to the University of Cambridge where he took up the study of Mathematics, and in 1906 obtained the B.A. degree of this University. In the summer of 1911 he went to Berlin and applied himself principally to the study of Indian Philology. Here he attended the lectures of Professors BECKH, ERDMANN, IMMELMANN, ED. LEHMANN, LOESCHKE, LÜDERS, MARQUART, MITTWOCH, RIEHL, E. SCHMIDT, W. SCHULZE, THOMAS, v. WILAMOWITZ MOELLENDORF and WOLFFLIN. For his main subject, Indian Philology, he was under the guidance of Professor LÜDERS, and under him he prepared a critical edition of Śākatāyana's Grammar (Adhyāya 1, pāda 1) with the commentary of Yakṣavarman entitled *Cintāmaṇi*, accompanied by German translation and notes, and submitted on 18th June 1914. The dissertation was, however, printed in 1921 and published on 21st May 1921.

Some further details are available from a *Synopsis of Career* which SUKTHANKAR himself prepared and printed in August 1924. Under personal details he says that he was the grandson of the late Mr. Shantaram Narayan, Government Pleader, and that he belonged to the Gauda Sārasvat Brahmin caste. The family of SUKTHANKAR appears to have settled down in Bombay for several generations, with land interests. He studied at St. Xavier's College, Bombay, during 1902-3; at St. John's College, Cambridge, during 1903-7; at Edinburgh University in 1909 and finally at Berlin University during 1910-14. He secured the M.A. degree of Cambridge in 1912 with the Mathematical Tripos (in 1906) and the Ph.D. of Berlin in 1914 in Philology and Philosophy. During the next two years he was a Government Research Scholar in the Archaeological Survey Department of the Government of India, and was serving as Assistant Superintendent, Archaeological Survey of India, Western Circle for four years (1915-19). In addition he was the joint-Editor to the *Annals* of the Bhandarkar Oriental Research Institute during the first two years of its life (1919-20), a Lecturer at the Annual Convention of the American Oriental Society, 1920; Travelling Lecturer at different

³ *Die Grammatik Śākatāyana's*, p. 91.

University centres in the United States of America, 1920-21 ; a Member of Gray's Inn, London, and of the American Oriental Society.⁴ When the new series of the *Journal* of the Bombay Branch of the Royal Asiatic Society was inaugurated, SUKTHANKAR took charge of it as its Chief Editor, and to him is due the beautiful appearance of the journal and the uniformly high standard that it has maintained during all this time. This, in brief, is all that we can know of SUKTHANKAR from his public activities up to 1924.

It was about this time that the Mahābhārata Department of the Bhandarkar Oriental Research Institute in Poona needed reorganisation and a competent General Editor to take charge of the work in all its aspects. The preliminary work which resulted in the publication of the Tentative Edition of the *Virāṭaparvan* by Mr. N. B. UTGIKAR had been circulated among competent scholars and elicited a number of concrete suggestions which necessitated the reorganisation of the department as a whole. It is at this juncture that SUKTHANKAR first comes into the scheme, although in various other capacities during his earlier stay in Poona he had been actively connected with this Institute and its research activities. He took charge of his office as General Editor on 4th August 1925, and for the next seventeen years devoted himself entirely to the cause of the Great Epic which he made his own. Thereafter his contributions to other aspects of Indic studies are overshadowed by his *magnum opus*, the Critical Edition of the Great Epic and the Prolegomena with Epic Studies.

The first paper which SUKTHANKAR contributed seriously to Indology was during his Berlin days, entitled 'Miscellaneous Notes on Mammata's *Kāvya-prakāśa*.'⁵ This paper, published in 1912, already bears the stamp of scholarship which marked all his characteristic contributions at a later date. The style, the directness of approach and the economy of words in expressing himself, are all there. The first part of this paper discusses in detail the problem of the double authorship of *Kāvya-prakāśa*. By a comparison of the *Kāvya-lamkāra* with, on the

⁴ SUKTHANKAR was elected an Honorary Member of this Society in 1938, in recognition of his great work on the Mahābhārata, and became the first Indian scholar after Sir Ramkrishna Gopal BHANDARKAR to receive this honour.

⁵ ZDMG (1912) 66.477-90 ; 533-43.

one hand, the part of *KP* attributed to Mammaṭa and on the other, that attributed to Allāṭa, he sets the matter beyond the pale of doubt. It is demonstrated that while the author of the latter end of *KP* depends for his whole material practically on *KL* and does not hesitate to borrow phrases and expressions *verbatim* from the latter, Mammaṭa himself makes use reservedly of the new ideas brought into *Alaṃkāraśāstra* by Rudraṭa and looks for his authorities amongst writers older than Rudraṭa. In the second part⁶ SUKTHANKAR points out that a portion of the *Vṛtti* to the definition of the *Alaṃkāra Samuccaya*, in *KP*, does not originate from either Mammaṭa or Allāṭa, and that it must be regarded as a later interpolation. A third section⁷ deals with the practice of quoting names merely *honoris causa*, as common among the grammarians such as Jainendra and Śākatāyana, paralleled by the facts which centre round the verse no. 860 in the *Kāvyapraṭīkā*. It is pointed out that the mention of the names Udbhaṭa and Bhāmaha by the commentators on this verse is merely *pūjārtham*.

The scientific training which SUKTHANKAR received at Cambridge while preparing himself for the Mathematical Tripos, stood him in good stead during his Berlin days. Although he took up Indian Philology and Philosophy as his main branch of study, this Mathematical training prepared him for a scientific outlook on matters literary or historical, and there was no study or investigation which he considered was low enough for a scholar if it led to proper utilisation of the material available. Thus we find him, in 1914, preparing a very detailed Index to Sir Ramkrishna Gopal BHANḌARKAR's *Vaiṣṇavism, Śaivism and Minor Religious Systems*.⁸ The preparation of an index of this type involves considerable labour and a deep understanding on the part of the indexer especially when he is separated from the author of the work indexed by nearly 6000 miles. This is exactly what happened in the case of this particular index, and the training involved in its preparation must have been an education to SUKTHANKAR under the direct supervision of Prof. LÜDERS.

⁶ *Ibid* 533-41.

⁷ *Ibid* 541-43.

⁸ Published in the *Grundriss der Indoarischen Philologie und Altertumskunde* in 1914.

There is now a gap of three years before SUKTHANKAR once again comes in with further contributions. This was evidently the period when he was attached to the Archæological Survey of India as a Government of India scholar, and was gathering varied experience, particularly in Epigraphy. The newly discovered Aśokan Edict of Maski was being entrusted to Rao Sahib H. Krishna SASTRI, officiating Government Epigraphist to the Government of India for editing towards the second half of 1915. At this time SUKTHANKAR was studying South-Indian Epigraphy and Palæography in the office of the Government Epigraphist and it is not unlikely that much of the work in connection with the Maski Edict was actually done by SUKTHANKAR. For he had received his training in this branch under LÜDERS, one of the most resourceful scholars in Europe who was equally at home with such difficult epigraphs or fragmentary Mss. as with printed texts. The 'help which the Rao Sahib received from SUKTHANKAR in his editorial work is acknowledged by him in the following words : ' The following text, translation and notes have been prepared by me with the co-operation of Dr. V. S. SUKTHANKAR, M.A., Ph. D., a Government of India Research Scholar, who is studying South-Indian Epigraphy in my office.'⁹

During this period there are two Progress Reports of the Archæological Survey of India, Western Circle, from the pen of SUKTHANKAR, respectively for 1916-17 and 1917-18. His first tour of exploration took him about two months round the Sirohi State¹⁰ where, in addition to the surveying of historical monuments, he filled up the lacunæ in the collection of the inscriptions of the Paramāras of Ābu, most of which were located within this State. With the material collected during this tour, in addition to what was already on record in the office of the Western Circle, it was thought possible to reconstruct a skeleton of the history of this family of Rajput chiefs from the middle of the eleventh century to about the middle of the fourteenth century A.D. SUKTHANKAR had projected a separate study of this interesting period on the basis of these records for the Director-General's *Annual of Archæology*, but other and more important work must have prevented the fulfilment of this project. This exploration covered the sites at Or with a Vishnu and Jain temples ;

⁹ *The New Aśokan Edict of Maski* (—Hyderabad Archæological Series, No. 1), 1915, p. 3.

¹⁰ *Prog. Report of A. S. I., Western Circle*, 1916-17, part IV, pp. 59-72.

Girvar where a Śiva Liṅga and pedestal had been unearthed : Datānī believed to be the scene of the battle fought in V. 1640 between Mahārāo Surtān of Sirohī and Emperor Akbar, in which the former was victorious ; Makāval with a pillar inscription of the Paramāra Dhāravarṣa, dated V. 1276, Śrāvaṇa-sudī 3 Monday ; Nitorā with, among other temples, a shrine of Śūrya and a temple of Pārśvanātha ; and a number of other interesting places.

The second Report for 1917-18 mostly deals with Epigraphy and Numismatics. The chief interest lies around the Hindu and Buddhist Inscriptions, including the two sets of copper-plates of the Kadamba Kings Ravivarman and Kṛṣṇavarman ; two Caulukya Plates referring to the reign of the Caulukya Karna, dated respectively Śaka 996 and Vikrama 1131 ; two Valabhi Plates dated Samvat 210 and issued by order of the Mahāsāmanta Mahārāja Dhruvasena I, the Maitraka King of Valabhi. One of the most interesting of epigraphs dealt with at this time are the inscriptions at Dhar known as Sarpabandha, engraved on the pillars of an old grammar school called the Bhoja Śālā at Dhar. One of the inscriptions is a chart of the Sanskrit alphabet and other of verbal terminations. This latter is taken from a chapter of the Kātantra. These epigraphs are dated ca. 1150 A.D. on the strength of the names. Paramāra Naravarman and Udayāditya of Malva. Another important discovery was the Sanchi inscription of the time of Svāmi Jīvadāman which provides a date and location for Svāmi-Jīvadāman, the father of the founder of the third Dynasty of Satraps in Surāṣṭra who was up till then known only through the coins of his son Svāmi-Rudrasinha II.

In the *R. G. Bhandarkar Commemoration Volume*¹¹ appears a short paper by SUKTHANKAR entitled "Palæographic Notes". In this paper SUKTHANKAR's knowledge of Indian palæography is exhibited with the same careful precision which always characterised similar studies of LÜDERS. The main object of investigation was to find out the exact period at which 'Acute-angled' or 'Nail-headed' alphabet of Northern India was supplanted by the rival Northern Nāgarī. It was clear that up to the beginning of the eighth century (A.D. 708 : the Multāi plates) the acute-angled alphabet was still current in Northern India ; on the other hand the Kanheri inscriptions (A.D. 851 and 877) unmistakably show the use of the

¹¹ Pp. 309-22.

Nāgarī alphabet for epigraphical purposes. The balance of evidence, as SUKTHANKAR points out, leads strongly to the conclusion that the Sāmāṅgaḍ grant is spurious, and that the first employment of the Nāgarī is to be found in the Kanheri inscriptions, in direct opposition to the earlier view, expressed by BÜHLER¹² who was inclined to suppose that the Northern Nāgarī was in use at least since the beginning of the eighth century. The evidence used by BÜHLER consisted of the Sāmāṅgaḍ grant of the Rāṣṭrakūṭa Dantidurga bearing a date corresponding to A.D. 754, from Western India; the Dighvā-Dubaulī plate of Mahendrapāla I and the Bengal Asiatic Society's Plate of Vināyakapāla (of the Imperial Pratihāra dynasty) believed by BÜHLER to be dated in the years corresponding to A.D. 761 and 794-5 respectively. A detailed consideration, however, points out that these two records are to be expunged from their place at the end of Plate IV of BÜHLER's Tables, and with this the entire block of evidence in support of the supposition for the use of Nāgarī forms for epigraphs since the beginning of the eighth century disappears. By proving that the other plank of this theory, the Sāmāṅgaḍ grant, to be spurious, SUKTHANKAR established that the epoch for the use of Nāgarī in epigraphic documents should be taken forward by at least a hundred years. Incidentally he corrected also BÜHLER's mislection of the date of the Vināyakapāla plate to A.D. 931. In this way the difficulty created by BÜHLER's assumption for the use of the Nāgarī as epigraphic alphabet since the eighth century A.D., leaving the whole of the ninth century as bereft of any epigraphs in this script, is corrected.

SUKTHANKAR, as a critical reviewer, appears for the first time in two reviews published in the *Indian Antiquary* for 1917. The first review is on Prof. K. B. PATHAK's edition of Kālidāsa's *Meghadūta* (as embodied in the *Pārsvābhyudaya*)¹³ with the commentary of Mallinātha, etc. in its revised form, published in 1916. It was characteristic of SUKTHANKAR to be almost punctilious about the typography and general get-up of a book even in these early days, and it is no wonder to one acquainted with his insistence on the proper appearance of a printed book that the second paragraph of this review deals at length with the bad printing of this volume. His criticism of Prof. PATHAK's arguments regarding the date of Kālidāsa is couched in a language which is almost a precursor to the

¹² *Indische Palæographie* p. 51.

¹³ *IA* 46. 79-80.

style which he adopted in the famous Prolegomena, published 16 years later. One remark is significant : ' for it must be remembered that even the author of the *Pārśvābhyudaya* is separated by at least two centuries from the time of Kālidāsa,—a period which is long enough in India to engender interpolations. Each work represents the version locally current at the particular epoch to which the commentator belongs. And neither in one case the seclusion of the Kaśmīr Valley, nor in the other, the proximity to the poet by—admitting Prof. PATHAK's estimation to be correct—three centuries, is a sufficient guarantee to the entire purity of the respective texts.' Readers of the Prolegomena may recollect the force of these arguments with reference to the classification of the different classes of the Mahābhārata manuscripts.

The second critical review is of Dr. S. K. BELVALKAR's Mandlik Gold Medal Essay¹⁴ entitled ' An Account of the different existing systems of Sanskrit Grammar,' now known as *Systems of Sanskrit Grammar* in brief. This short book of 148 pages was published in 1915, and the review appears in the May 1917 issue of the *Indian Antiquary*. This is a model review : the introductory part deals objectively with what the author has actually to say in the book. The latter part of the review is strictly critical, pointing out the deficiencies of the book. Some of the sentences are characteristic of SUKTHANKAR at his best : ' It (—the book) should be indispensable to any one who intends writing a more comprehensive work, discussing *in extenso*, the many controversial points which are either only lightly touched upon by Dr. BELVALKAR or not noticed at all.' Similarly in discussing Dr. BELVALKAR's treatment of the relationship between Pāṇini and Kātyāyana he refers to the obvious overlooking by the author of KIELHORN's brochure on the same subject published forty years earlier (Bombay 1876). In these and other remarks there is not the least trace of that heavy-weight authority which is characteristic of uninformed critics whose prolonged experience and long possession of a scientific reputation is, however, counteracted by superficial observations regarding the work of others. SUKTHANKAR never posed as an authority in any subject and did not assume that attitude of superiority which is a mark of lesser lights. In all his dealings he was straight-forward, and especially in scholarly matters his attitude was purely impersonal. It is on this account that his pronouncements on any work, even when he pleaded ignorance of the subject, are valuable in themselves.

¹⁴ *Ibid.* 46. 106-8.

During 1918 SUKTHANKAR published his translation of JACOBI's paper on the Authenticity of the Kauṭīliya in the *Indian Antiquary*.¹⁵ This is perhaps one of the two occasions when he attempted to translate into English, for the benefit of Indian scholars, some of the foreign contributions. But any one acquainted with his style can see that the work is not a mere translation and that the translator has taken the trouble to present it in good English which has always given a personal charm to his writings.

The first epigraphs to be edited by SUKTHANKAR (other than the Maśki edicts of Aśoka) are published in 1919. The new Inscription of Siripulumāvī,¹⁶ a Prakrit record inscribed on a rock, firmly buried in the soil, lying midway between the villages Myākāḍōṇi and Chinnakāḍaburu in the Āḍōṇī Tālukā of the Bellari District, Madras Presidency, was edited by SUKTHANKAR as No. 9 for 1919 in the *Epigraphia Indica*. The importance of this epigraph lies in the site of the inscribed rock, fixing definitely a point south of the Krishna to which the sway of the Śātavāhanas extended. The other published as No. 4 for 1919 in *EI* is the Porumāṁilla Tank Inscription of Bhāskara Bhavadura¹⁷⁻¹⁸ (Śaka 1291, the exact tithi being on Monday, the 15th October, 1369 A.D.) is a long record of 127 lines inscribed on two slabs, set up in front of the ruined Bhairava temple. This inscription is interesting on account of the many obscure technical terms which still need elucidation.

The beginning a new interest is proved by SUKTHANKAR's notice of Bhāsa's *Cārudatta* edited by R. Ġanapati ŚĀSTRĪ of Trivandrum. This notice, published in *QJMS* for 1919, is the precursor of a long series of papers by SUKTHANKAR during the following five years. This short notice illustrates very clearly his special leanings towards textual criticism as an acute philologist with mathematical training. This particular training is clear in the use of the words 'assumption, argument, proof,' etc.; and according to his findings *Cārudatta* is a fragmentary play.

¹⁵ *Ibid.* 47. 157-61; 187-95.

¹⁶ *EI* 14. 153-5.

¹⁷⁻¹⁸ *Ibid.* 14. 97-109.

The year 1920 is one of the most fruitful in SUKTHANKAR's career as an Indologist. There are altogether seven papers published during this year, two of which are contributed to the first volume of the newly founded *Annals* of the Bhandarkar Oriental Research Institute in Poona. The first of these two papers,¹⁹ entitled 'On the Home of the so-called Āndhra Kings' is a result of his study of the Myakadoni Inscription of Śīrī-Pulumāvi referred to above. As a result of unscientific speculation the comparison of epigraphic and numismatic data with those recorded in the Purāṇas (the critical editing of which texts is still a desideratum) the Śātavāhanas were connected with the Andhra dynasty and placed before the public as an authentic account of the fortunes of the family. SUKTHANKAR penetrates skilfully through this morass of facts and points out that at the bottom of this fiction there is only constructive historical imagination which has been misled by the Purāṇic account, and that this account itself is of such a mixed character with its *variae lectiones* that it would be futile to arrive at a reliable and in every way a satisfactory text. Considering the find-places of the inscriptions of this dynasty it is found that the following distribution is noticed: Nanaghat, Nasik, Bhelsa, Kanheri, Karle, Myakadoni, Amaravati, Cina (Krishna Dist.) and Kodavolu. The earliest inscriptions are all from Western India and it is not until the time of Vāsiṣṭhiputra-Śīrī-Pulumāvi that we meet with an inscription of any king of this dynasty from the Āndhradeśa. Moreover the expression *Satavahanihara*—which reminds one of the expression *Satahani-rattha* of the Hīra-Haḍagalli copper-plate grant—appears to indicate that the tribe to which this line of kings belonged must be regarded as autochthons of the inland province so named, which has not yet been identified with certainty but which lay, probably, considerably, to the west of the Āndhra country. A consideration of the dates of the inscriptions and their sites indicates that the Śātavāhanas had first made themselves masters of the northern portion of the western Ghats, and even subdued some part of Mālava, before turning their attention to the conquest of the Āndhradeśa. This epigraphic evidence is remarkably borne out by numismatic evidence and the earliest coins are found in Western India. SUKTHANKAR's discussion of the views of RAPSON and Vincent SMITH is masterly and trenchant. All the evidence marshalled points to the south-western parts of the Deccan plateau as the possible home of this interesting dynasty.

¹⁹ *Annals BORI* 1.21.-42.

The second paper contributed to the *Annals* is on the Besnagar Inscription of Heliodoros.²⁰ Discovered providentially by Sir John MARSHALL, this little Prakrit record has engaged the attention of a number of distinguished scholars in Indian history, and a scholarly edition of the inscription by J. PH. VOGEL was published in the *Annual Report* of the Archæological Survey of India for 1908-09. But in all these studies the historical interest centring round the name of the Graeco-Indian king Antialkidas and the conversion of a Greek Ambassador in India to the cult of Vāsudeva preponderates over every other interest so that the language and textual criticism of the inscription has become the chief theme of investigation by SUKTHAKNAR in this paper. One important point is clearly established by SUKTHANKAR: that the writer of the inscription must have been a Greek who rendered word for word the original Greek model into the corresponding Prakrit, and that this Greek might conceivably be Heliodoros. The anomalies of Prakrit construction become clear when Greek syntax is invoked to our aid. This is particularly important both for Old and Middle Indo-Aryan syntax, for an analysis on this line of doubtful constructions might ultimately lead us to the unravelling of the substrata which have affected the growth of Indo-Aryan in its long history.

The short note on an Assyrian tablet²¹ found in Bombay is in reality an announcement of a unique discovery in Bombay, with the readings and English rendering by Dr. C. E. KEISER. Similarly the short review of LÜDERS' *Bruchstücke Buddhistischer Dramen*²² is a timely notice bringing out the importance of this work for several branches of Indian philology, and in particular to Indian palæography and Middle Indian dialectology, as also to the theory of Indian dramaturgy.

Curiosities of Hindu Epigraphy is the title of one of the least known of SUKTHANKAR's papers. It appeared in the *Asian Review* for October-December 1920,²³ the only English monthly journal published in Japan. It is a popular paper which brings out the characteristics peculiar to Indian epigraphs; in his wide survey he includes the famous Piprāwā Relic Inscription, the Besnagar Inscription of Heliodoros, the Armenian Memorial Stone epitaph near the city of Madras (ca. 1663 A.D. corresponding to the year 1112 of the Armenian patriarch Moses) in the

²⁰ *Ibid* 1. 59-66.

²¹ *JAOS* 40-142-4.

²² *Modern Review*, July 1920, p. 37.

²³ Pp. 725-7 ; 857-60.

Armenian language and script ; a Syrian inscription in a small church at Travancore besides Pahlavi records. Similarly he refers to discoveries including the fragment of an Aramaic inscription exhumed on the site of the ancient city of Taxila from the debris of a house of the 1st century B.C. No reference to epigraphic curiosities could be complete without a mention of the monumental slabs from Central India on which lengthy poems and dramas were engraved by royal patrons of literature and the fine arts. In the brief compass of a short general article SUKTHANKAR has touched upon the many-sided nature of Indian epigraphs, and includes reference to the rare inscription, perhaps the only one of its kind in the world, written in characters of the seventh century, engraved on a massive block, consisting of the text of notes of seven typical modes of Hindu Music arranged for the Indian lute.

The interest which SUKTHANKAR had evinced a little earlier in noticing the edition of Bhāsa's *Cārudatta*, bears fruit now, in the year 1920 and initiates his series of STUDIES IN BHĀSA of which altogether seven were published. The Introduction to this series²⁴ is remarkable for the breadth of vision and the catholicity of approach which SUKTHANKAR exhibits and which becomes hereafter the hall-mark of everything that he writes. The first series deals with certain archaisms in the Prakrit of the dramas ascribed to Bhāsa and published in the Trivendrum Sanskrit Series. These archaisms are tabulated as under : 1. *amhāam* (< Sk. *asmākam*) in opposition to later *amhānam*, the form *amhā(b)am* being reminiscent of Pāli *amhākam* and Aśvaghoṣa's *tum(h)āk(am)*; 2. The root *arh-* in the forms *arhā* and *arhādi* are reminiscent of Aśvaghoṣa's *arhessi*; 3. *ahaḥa* (< Sk. *aham*), 4. *āma*; 5. *Karia* (< Sk. *kṛtvā*) as compared with Śaurasenī *kaḍua*; 6. *ḥissa*, *ḥiṣṣa* (< Sk. *kaśya*); 7. *ḥhu* (< Sk. *ḥhalu*); 8. *tava* (< Sk. *tava*); 9. *tuvaṁ* (< Sk. *tvam*); 10. *dissa*, *diṣṣa-* (< Sk. *dr̥ṣya-*) and 11. *vaam* (< Sk. *vayam*). A consideration of these eleven archaisms which are found side by side, in some cases, with later or more modern forms, shows its affinities to Aśvaghoṣa's Prakrit, and goes to prove that below the accretion of ignorant mistakes and unauthorised corrections for which successive generations of scribes and diaskeuasts should be held responsible, there lies in these dramas a solid bedrock of archaic Prakrit, which is much older than any we know from the dramas of the so-called classical period of Sanskrit literature.

In the following year the second series of Studies in Bhāsa was published dealing with the versification of the metrical portions of these dramas.²⁵ In this study he has intensively pursued certain characteristics of the versification of the metrical portions which seemingly distinguish them from those of the works of the classical period, and which, moreover, appear to suggest points of contact with the epic literature. It also embraces a study of metrical solecisms of Sanskrit passages, with the intention of ascertaining their exact number and of discussing their nature. The analysis of the metres shows the employment of the Śloka, Vasantatilaka, Upajāti, Śārdūlavikrīḍita, Mālinī, Puṣpitāgrā, Vamśastha, Śālinī, Śikharinī, Praharṣinī, Aryā, Sragdharā, Harinī, Vaiśvadevī, Suvadanā, Upagīti, Daṇḍaka and abbreviated Daṇḍaka, Drutavilambita, Prthvī, Bhujangaprayāta, Vaitāliya, the last seven of which occur but once; the order given is according to the descending order of their frequency totals in the entire group of plays. A comparison of these with STENZLER's tables²⁶ shows that with the exception of the so-called abbreviated Daṇḍaka of twenty-four syllables and an undetermined Prakrit metre, the metres of these dramas are those of the classical poesy. The frequency table for the first four metres enumerated above gives 436 for the Śloka, 179 for the Vasantatilaka, 121 for the Upajāti and 92 for the Śārdūlavikrīḍita in a grand total of 1092 verses. This fact shows the general preponderance of the Śloka to all the rest, to the extent of more than thirty-nine or very nearly forty per cent. of the total. It is found that Bhavabhūti is the only classical dramatist who employs the Śloka frequently with the percentage represented by 129:385 for *Mahāvīracarita* and 89:253 for the *Uttarārāmacarita* and 14:224 in the *Mālatīmādhava*. A comparison of these results with those determined for other classical dramatists makes abundantly clear that the preference for Ślokas is a feature of the metrical technique of these plays, in which they differ from the dramas of the classical age. The list of solecisms so far as the Sanskrit metre is concerned includes two cases of irregular sandhi, twelve of change of voice, two of change of conjugation, one each of irregular feminine participle and of irregular absolute, two of simplex for the causative, three of irregular compounds, one of an irregular syntactical combination and several anomalous formations. All these investigations tend to prove that the Sanskrit of the verses included in the Bhāsa

²⁵ *Ibid* 41. 107-30.

²⁶ *ZDMG* 44.1— edited by KISHNAN.

dramas differ in certain minute particulars from the Sanskrit of the classical drama, and reflects a stage of literary development preceding the classical drama which culminates in the works of Kālidāsa and Bhavabhūti. This conclusion is parallel to the one already arrived at by consideration of the Prakrit archaisms contained in the plays,

During 1921 SUKTHANKAR also published Three Kṣatrapa Inscriptions in collaboration with R. D. BANERJĠ as No. 17 in the *Epigraphia Indica* (vol. XVI)²⁷. These inscriptions are exhibited in the Watson Museum of Antiquities at Rājkot, and though they had been published before, the joint editors re-edited them in order to have them properly illustrated and to render them more easily accessible. The first is the Gundā Inscription of the time of Kṣatrapa Rudrasimha (: the year 103), ca. 181 A.D. ; the object of the inscription is to record the digging and constructing, at the village of Rasopadra, of a well by the senāpati Rudrabhūti, son of the senāpati Būpaka, the Ābhīra. The second is the Gaḍhā (Jasdan) Inscription of the time of the Mahā-Kṣatrapa Rudrasena (: the year 127-126), ca. 204-5 A.D. The third is the Junāgaḍh Inscription of the time of the grandson of the Kṣatrapa Jayadāman. One word is extremely interesting in the second of these three inscriptions : Śāira on which some comment has been offered by the editors in a footnote, but no satisfactory explanation could be arrived at, although the meaning assigned by BANERJĠ is, to our mind, the nearest approach to the true state of affairs.

No. 19 in the same volume of *Epigraphia Indica* is an edition of two Kadamba Grants²⁸ from Śirsi by SUKTHANKAR. The first copper-plate grant is that of Ravivarman (the [3] 5th year) and the second of Kṛṣṇavarman II (the 19th year). The chief claim to our attention lies in the regnal years in which they are dated.

Before we turn to SUKTHANKAR's dissertation published in this year there is a short review of E. R. HAVELL's *Handbook of Indian Art* which must draw our attention.²⁹ While he is in general agreement with the

²⁷ *EI* 16. 233-41.

²⁸ *Ibid.* 16. 264-72.

²⁹ *The Freeman*, 7 December 1921, pp. 308-10.

main thesis of Mr. HAVELL there are many matters of detail and of interpretation where he would differ from him. The following lines are suggestive :

To Mr. HAVELL and the critics of his school, all Indian art is the product of some sort of subjective emanation informed with spirituality and religiosity. When Mr. HAVELL says, for instance, that 'the pleasure-gardens of the Mohammedan dynasties had the religious character which runs through all Indian art,' he overshoots the mark. Forgetting that he has considered only the religious aspect of Hindu art, he comes to the erroneous conclusion that all Indian art bears a religious character. As a matter of fact, Hindu architecture is not any more spiritual than is Greek or Gothic architecture. Nor is it true to say that the Hindu art is the product of a yogic hypersensitive consciousness, any more than the best specimens of mediæval Christian art are that.*** The truth of the matter is that when due allowance is made for superficial differences in schools and epochs there is an essential identity of artistic inspiration between East and West.

The above view is typical of SUKTHANKAR's scientific approach to problems : wading through the *minutiae* or *differentiae* in their space-time context and arriving at the central theme which shows an essential identity or uniformity throughout. This is clearly borne out later in his great Mahābhārata work.

The most important publication of this year is naturally SUKTHANKAR's dissertation which had been completed just prior to the beginning of the first World War, in 1914. The title of the dissertation is : "Die Grammatik Śākaṭāyana's (Ādhyaya 1, Pāda 1) nebst Yaśasvarman's Kommentar, mit Uebersetzung der Sūtras und Erläuterungen Versehen.' It gives a specimen of the grammatical sūtras of Śāk. based upon three Manuscripts, B, P and H. Although these three Mass do not differ from each other in major questions, they appear to be independent of each other in their minor variations. The constitution of the text is principally based on B ; the text occupies the first 33 pages (13-45) ; the *variae lectiones* cover pages 46-51 ; the second part, consisting of the translation into German with explanations of the text covers the rest of the 90 pages. As remarked in the *Bombay Chronicle* for February 1915, this dissertation is at the same time a contribution to the history of Sanskrit Grammar. Evidence for its being so is to be found in the critical review of BELVALKAR's *Systems of Sanskrit Grammar*,³⁰ and the rejoinder of Prof. PATHAK on

³⁰ See f.n. 14 *supra*.

the authorship of the *Amoghavṛtti* subsequently.³¹ SUKTHANKAR himself considered that this dissertation was to him only a means of training in the modern scientific investigation so successfully applied by Western Orientalists and Indologists of the greatness of LÜDERS, and that the work by itself was not of any great merit. But this was at a time when all his energies were absorbed in the great work of editing the *Mahābhārata*; it was, therefore, a matter of considerable surprise to him that there are a number of important references to this early work of his in RENOU's *Grammaire Sanscrite*.

Two inscriptions were edited by SUKTHANKAR during 1922. The first one is the *Vākātaka* Inscription from Ganj,³² and like the *Kuṭhārā* inscription discovered by CUNNINGHAM (commonly known as the *Nāchanē-ki-tālāi* inscription), is one of the oldest records of the *Vākātaka* dynasty, and is practically identical with it. SUKTHANKAR's freedom from bias is witnessed in this editorial work :

BÜHLER assigns the copper-plates of the *Vākātaka* *Pravarasēna* II., the grandson of *Prthivīseṇa* I., to the fifth or sixth century A.D., it is not known to me on what grounds. I have examined the inscriptions of the *Vākātaka* dynasty and compared them with the allied inscriptions engraved during the time of the Guptas, of the kings of *Śarabhapura*, of *Tivara*, of *Kōsala* and of the early *Kadamba* kings, without being able to arrive at any definite conclusion regarding the age of the *Vākātaka* inscriptions. BÜHLER's date, however, appears to me to be far too early.'

When he is not certain of his results, SUKTHANKAR never makes any overstatement or shoots over the mark. The caution of the scholar trained in mathematical thinking is in evidence in every statement that he makes.

The second group consists of two new grants of *Dhruvasena* (I). from *Palitānā*.³³ The first grant is edited from the plates of *Dhruvasena* I : (*Valabhī*)-*Sam(vat)*207, and SUKTHANKAR's discussion of the controversial expression *-prāpīya* or *-prāveśya* is very interesting. The date of the inscription corresponds to A.D. 527. The second grant contains only the opening portion of a land-grant of the *Maitraka* king *Dhruvasēna* I. This is concluded with a Postscript wherein another plate issued by the same king in the year 206 (corresponding to A.D. 525) is edited.

³¹ *Annals BORI* 1.

³² *EI* 17. 12-14.

³³ *Ibid* 17. 105-110.

The year's work is concluded with the third paper in the series *Studies in Bhāsa*, dealing with the relationship between the *Cārudatta* and the celebrated *Mṛchakaṭikā*.³⁴ According to SUKTHANKAR, 'the close correspondence between the anonymous fragment *Cārudatta* and the celebrated *Mṛchakaṭikā*, attributed to King Śūdraka, inevitably necessitates the assumption of a genetic relationship, and indisputably excludes the possibility of independent origin.' The problem is attacked by noting the textual differences between the two versions, and these variations are classified here under four headings: 1. Technique; 2. Prakrit; 3. Versification; and 4. Dramatic incident. By a dispassionate consideration of technical variations it is found that this evidence is inconclusive regarding priority of the one or the other. The Prakrit archaisms of *Cārudatta* are by themselves no criterion for the general priority of *Cārudatta* to *Mṛchakaṭikā*; on the other hand the versification of *Mṛcch.* is better than that of *Cāru.*, and the change of readings between the parallel versions appears to be consistently worse for the *Cāru.* We could not reasonably hold the copyists guilty of introducing systematically such strange blunders and inexcusable distortions. If the Prakrit and Versification facts are combined, and if the posterity of *Cāru.* is assumed, we are asked to believe that while the compiler of the *Cāru.* had carefully copied from older manuscripts all the Prakrit archaisms, he had systematically mutilated the Sanskrit verses, which is a *reductio ad absurdum*. The fourth point adds considerably to the opposite assumption of the priority of *Cāru.* to *Mṛcch.* Adding all this evidence SUKTHANKAR comes to the conclusion that it is not unreasonable to assume the priority of the *Cārudatta* fragment to the *Mṛchakaṭikā*.

While engaged on such wider research SUKTHANKAR did not neglect his aesthetic taste as a critical Sanskrit scholar. We find him publishing during 1922, in the Calcutta journal *Shama'a*,³⁵ his first English rendering of the *Svapnavāsavadatta*, between April and October. It is an excellent English version of this immortal love-play, republished with great improvement, by the Oxford University Press in 1923 as: "Vāsavadattā, Being a translation of an anonymous Sanskrit drama, *Svapnāvāsavadatta* attributed to Bhāsa."³⁶ Within its 94 pages of beautiful print it is packed

³⁴ JAOS 42. 59-74.

³⁵ April and July 1922, pp. 137-69; October 1922, pp. 25-45.

³⁶ Pp. V + 94.

with interest and excitement. According to a searching critic in the *Voice of India*,³⁷ SUKTHANKAR's rendering mirrors the truth, lucidity and vigour of the original. A very pellucid preface which hides extensive reading, shows that the burden of the story is the triumph of steadfast, undying love, for which no sacrifice is too costly. Another critic in the *Modern Review*³⁸ agrees that Dr. SUKTHANKAR is one of that rare group of Indologists who have combined with a passion for occidental method a mastery of the indigenous technique of Sanskrit grammar. Hence his translation of Bhāsa's masterpiece is at once transparent and suggestive, useful for the general reader and illuminating from the point of view of textual elucidation.

Studies in Bhāsa : IV deals with a very detailed concordance of the dramas.³⁹ The introductory paragraph of this paper, with the words italicised by us, indicates the scope and method of approach, which has been SUKTHANKAR's special characteristic.

Gaṇapati ŚASTRĪ and other scholars after him, who uphold the theory of the authorship of Bhāsa, have sought to justify their ascription to the entire group of thirteen dramas to one common author on the strength of some stray similarities of expression and analogies of thought to which they have drawn attention in their writings. The evidence that has hitherto been adduced must, however, be said to be inadequate to prove the claim in its entirety. The recurrent and parallel passages collected by them although they show in a general way that this group of thirteen anonymous plays contains a number of ideas and expressions in common, do not suffice to establish the common authorship. It has not been realized by these scholars that *the ascription of common authorship has to be justified and proved rigorously in the case of each drama separately*. Only intensive study of the diction and idiosyncracies of the dramas, taken individually, will enable us to pronounce an authoritative opinion on the question.

The scope of the paper has been restricted to the presentation of material which falls within the following six categories : (a) Entire stanzas ; (b) Entire pādas of verses ; (c) Longer prose passages ; (d) Short passages ; (e) Set phrases and rare words, and (f) Echoes of thought. Altogether these six categories cover 127 cases.

³⁷ For 31st Oct. 1923.

³⁸ For Jan. 1924.

³⁹ *Annals BORI* 4. 167-187.

The fifth of this series entitled 'A bibliographical note'⁴⁰ is an attempt to present, in as complete a form as possible all the material available up to 1923 on the vexed problem of Bhāsa, arranged systematically under different heads. The total number of entries comes to 111 and is distributed over three main heads: Individual Plays (Nos. 1-54), General Criticism of the Plays (Nos. 55-95) and Incidental References (Nos. 96-111). A study of this scattered material, mostly at first hand, was the basis for the observations contained in SUKTHANKAR's papers on the subject of Bhāsa. This little study is really an index to the genius of SUKTHANKAR; for it shows that he was not satisfied with a mere surface acquaintance with the critical literature on the particular subject of his own investigation, and dived deep not only into the original material but also into the critical studies of others.

'An Excursion on the Periphery of Indological Research' is the text of a discourse delivered by SUKTHANKAR on 20th August 1923, at a gathering of the Cama Institute, on the 14th Anniversary of the late Mr. K. R. CAMA, and published in the third volume of that Institute's journal during 1924.⁴¹ In his peripheral excursion the lecturer takes us round Greater India, Iran (and discovery of Hittite and Mitani tablets) the countries of Buddhistic expansion in Central Asia wherein Sir Aurel STEIN, Dr. VON LE COQ and others had discovered a large amount of literary remains. This lecture summarises the important research as well as the results of the exploration carried out by European scholars and exhorts Indian scholars to do likewise. These problems which lie at the fringe of Indological research and should not be neglected require as much attention by Indian scholars as the central problems with which the previous generation of Indian scholars concerned themselves. It is an appeal to us to widen our scholarly outlook and understand the problems which our forbears have created in conquering intellectually or spiritually dominions lying on the periphery of India.

The year 1925 is the most important in the career of SUKTHANKAR. It was on the 4th August of this year that he assumed charge of the General Editorship of the Critical Edition of the Mahābhārata and thereafter devoted himself almost exclusively to this great work. But the

⁴⁰ *JBBRAS* 26. 230-49.

⁴¹ Pp. 93-104.

accumulated studies which he had completed during the preceding period were still pending with several journals. Thus we find the second translation from German which SUKTHANKAR made for publication : Zarathustra : His Life and Doctrine, being the Akademische Rede delivered by Prof. Chr. BATHOLOMAE at Heidelberg on 22nd November 1918.⁴²

A short note on the Sātavāhanas appears simultaneously in the *JBBRAS*⁴³ and the *QJMS*,⁴⁴ replying to the criticism of Mr. T. N. SUBRAMANIAN of Kumbakonam regarding SUKTHANKAR's paper on the Home of the so-called Andhras. The following sentences mirror SUKTHANKAR's critical as well as introspective attitude quite well :

I must frankly admit, however, that the wording of the last paragraph of my article in question is rather abstruse and apt to confuse and mislead a casual reader. I welcome therefore this opportunity to restate my old views more lucidly as follows. I hold : (1) that no cogent reason having been shown for connecting the early Sātavāhana kings with the Āndhradeśa, their activity should be regarded as restricted to the western and south-western portion of the Deccan plateau ; only later kings of this dynasty extended their sway eastwards, so that subsequently even the Āndhradeśa was included in the Sātavāhana dominions ; the Sātavāhana migration was from the west to the east ; (2) that the Sātavāhanas are different from, and should not be confused with, the Āndhras mentioned in Greek and Chinese chronicles ; (3) that the home (or early habitat) of the Sātavāhanas is to be looked for on the western side of the peninsula and is perhaps to be located in the province then known as *Sātavahani-hāra*—a province of which the situation is unknown or uncertain.

The whole object of research is to arrive at the truth, so far as that is possible ; and if one has committed an error of judgment or has not expressed oneself clearly, the confessing to that fact and the re-attempt to correct oneself in that light is the true character of a great scholar. SUKTHANKAR comes out triumphant each time this test is applied to his writings ; for to him, knowledge without character was a barren thing, incapable of touching the finest emotions of a cultured being.

⁴² Reprinted from the *Sanjana Memorial Volume*, pp.1-15.

⁴³ New Series, 1. 160-61.

⁴⁴ July 1923, Vol. XIII, No. 4, pp. 776-7.

The sixth of the series, *Studies in Bhāsa*, is one of SUKTHANKAR's great contributions to critical reviewing.⁴⁵ In this paper he gives a belated review of the thesis *Bhāsa's Prākṛit* by Dr. Wilhelm PRINTZ, accepted by the University of Frankfurt as 'Habilitationschrift' in 1919, and published two years later. The work itself is one of the most important contributions to the study of the Prakrits in Sanskrit plays, and in particular to the study of the Prakrit of the thirteen plays attributed to Bhāsa. The text-critical training which SUKTHANKAR had received at the hands of LÜDERS is clearly visible when he remarks :

' His methodology seems to imply that the Trivandrum texts have been handed down in an almost unalloyed condition since the time of the supposed author Bhāsa. PRINTZ deals with the Prakrit of these plays in the same confident way in which Prof. LÜDERS has dealt with the Prakrit of the Turfan fragments of Buddhist dramas. In doing so, PRINTZ has failed to take into account the essential difference of character between the two sets of manuscripts, not to speak of the manner in which they have been edited ; he appears not to appreciate the elementary fact that Prakrit texts are liable to serious mutilation and corruption in the course of transmission through centuries, and that they need most careful editing. PRINTZ's method of arguing is most unscientific.'

It may be mentioned here that the whole of this detailed review article is a corrective to PRINTZ's thesis and that his work will be practically useless for critical studies without SUKTHANKAR's notes on it. The chief fault of PRINTZ is the classification of the Prakrit dialects, and his citations for Māgadhī and Ardha-māgadhī are all but useless : secondly his overlooking the southern graphy and obvious Dravidianisms of the Prakrit passages has led him to wrong conclusions. An important result of examining PRINTZ's thesis by SUKTHANKAR is to prove that the Prakrit argument is inconclusive and cannot by itself be safely made the basis of chronology.

We now come to the last of the studies on Bhāsa which SUKTHANKAR published.⁴⁶ It is entitled : " The Bhāsa Riddle : A Proposed Solution." Although it is not numbered as the seventh in the series called STUDIES IN BHĀSA of which six had already been published, it is a fitting conclusion

⁴⁵ *JBBRAS* (NS) 1.103-17.

⁴⁶ *Ibid.* 1.126-43. See now A.D. PUSALKAR.

M Bk Y 62—8a

to these previous studies. The conclusions arrived at may be given in the author's own words :

My view of this group of plays may then be briefly summarized as follows : Our *Svapnavāsavadattā* is a Malayalam recension of Bhāsa's drama of that name : the *Pratijñāyugandharāyaṇa* may be by the same author ; but the authorship of the rest of the dramas must be said to be still quite uncertain. It may be added that Bhāsa's authorship of some particular drama or dramas of this group is a question wholly independent of the homogeneity or heterogeneity of the group as a whole. Indeed the only factor which unites these plays into a group is that they form part of the repertoire of a class of hereditary actors. The *Cārudatta* is the original of the *Mṛcchakaṭika*. The five one-act Mahābhārata pieces form a closely related, homogeneous group ; they appear in fact to be single acts detached from a lengthy dramatized version of the complete MBh saga, — a version which may yet come to light, if a search be made for it. The *Urubhaṅga* is no tragedy in one act, but a detached intermediate act of some drama. The present prologues and epilogues of our plays are all unauthentic and comparatively modern.

The year closes with reviews of the *Journal of the United Provinces Historical Society* for December 1923, vol. III, Part 1, MACDONELL'S *Practical Sanskrit Dictionary* (corrected reissue, 1924) and Sir FLINDER PETRIE'S *Religious Life in Ancient India*.⁴⁷ All these reviews attest to that independence of judgment and that sureness of approach which one learns to associate with SUKTHANKAR.

During 1926 SUKTHANKAR revised GHATE'S *Lectures on the Rig Veda* and contributed a Preface. He also contributed an illuminating Foreword to the Marathi rendering of the *Svapnavāsavadattā* by Prof. URDHWARESHE.

Since 1925 SUKTHANKAR became the Chief Editor of the *Journal of the Bombay Branch of the Royal Asiatic Society* (New Series) and gave a new impetus to the declining condition of the research work published by the Society. There is a reference to this in the *Bombay Chronicle* for May 10, 1925, which may be reproduced here :

The reproach that the local Branch of the Royal Asiatic Society has been the rose garden of senility seems to be in a fair way to be wiped out. The first number of the new series of its journal may now well stand in line with similar periodicals in other parts of the world and certainly in India. The Joint Editors are Dr. V. S. SUKTHANKAR, M.A., Ph.D. (Berlin) and Professor SHAIKH Abdul Kadar, M.A., I.E.S. The former especially seems to have thrown himself with energy into his new task. Learned Bombay expects that he will sustain the ardour evinced in the first issue of the journal and fulfil the promise of his first performance.

Prof. WINTERNITZ, while reviewing the same journal in the *Vienna Oriental Journal*, remarks :⁴⁸

" We heartily congratulate the Bombay Society on this first number of the New Series of its *Journal*, which not only contains much valuable matter, but is also got up in excellent style and well printed on good paper. It is to be hoped that a large increase of subscribers to the journal both in India and Europe will make it possible for the Society to keep up this high standard."

Since 1925 SUKTHANKAR was delivering postgraduate Lectures on Comparative Philology at the University of Bombay. Among his papers are still to be found manuscript and type-written notes of these lectures, particularly in connection with the comparative grammars of Indo-European and Indo-Aryan. A cursory glance has convinced the writer of the extreme care with which SUKTHANKAR compiled his notes and with what details he worked out his general lectures. Like R. L. STEVENSON he polished his work over and over again until all the dross was removed, leaving pure shining gold behind. If one works through all the *Nachlasse* of SUKTHANKAR one is struck by the patience, the meticulous accuracy, the eye to detail and withal a power to see the whole through a few details only, with which he took up any problem.

SUKTHANKAR commenced his new but last phase of scholarship as the General Editor of the Great Epic on the 4th of August 1925. He had naturally before him the experience of his predecessor UTGIKAR with a batch of assistants and an editorial committee; but that experience showed him the necessity of re-organizing the entire department, from the manner of collating the manuscripts up to the final selection of readings for the constituted text and the laborious critical apparatus. The classification of the Mahābhārata manuscripts broadly into two recensions, Northern and Southern, had already been achieved before the turn of the century. In the tentative edition of UTGIKAR also this was accepted as an axiom, but he did not attempt a full classification of the Mss. and arrive at their pedigree. His main object was to test the authenticity of a certain group of Mss. utilized for the tentative edition and clear the ground for future editorial work on the critical Edition. Now that the final responsibility of critically editing the Epic rested entirely with SUKTHANKAR he had not only to select his Mss. for the critical apparatus by means of tests devised so far and assure himself of the authenticity of the manuscript tradition represented by various exemplars obtainable

⁴⁸ WZKM.

for collation, but also to arrange for their proper collation and subsequent classification. It took four years to produce the tentative edition of the Virāṭaparvan based on 16 Mss. : 11 Devānagarī, 1 each of Bengali, Telugu and Grantha and two Malayālam Mss. The best commentary on this edition is to be found in the Introduction to the Critical Edition of the Virāṭaparvan.⁴⁹

Last of all, there is the Tentative Edition of the Virāṭaparvan prepared by the late Mr. N. B. UTGIKAR, M.A., and published by this Institute in 1923. It was based on eleven Devānagarī Mss. (our D₁₋₃, 7-8-10 Dn₁, n₂; the others having been rejected by me as of little critical value), one Bengali (our B₄), one Telugu, one Grantha and two Malayālam Mss. (our M₁₋₂). Out of these 16 Mss. Mr. UTGIKAR had chosen three (F A M = our D₁₋₃) as the basis of his text. The chief reason for his preference for these seems to have been their division of the Virāṭaparvan into 67 adhyāyas, exactly the number given in the Parvasaṃgraha. Further by effecting certain omissions favoured by the Southern recension, Mr. UTGIKAR was able to arrive at a text of just 2050 stanzas, not a stanza less or more. 2050 is, again, the Parvasaṃgraha figure. Relying on the Kumbhakonam edition as the Southern recension, which is in reality a hopeless blend of the Northern and the Southern and which at this particular point (Parvasaṃgraha) has the Northern text, Mr. UTGIKAR came to believe that the Parvasaṃgraha data in both the recensions are the same, that the Parvasaṃgraha has not been tampered with, and that having been known to Kumārila in about the 7th century A.D. it must reflect the Mahābhārata of a still more ancient age, and hence his own text which tallies with this data so perfectly must be as old as 'fourth century A.D. at least'. Mr. UTGIKAR thought that he could go even further back, beyond the Parvasaṃgraha age, by purging the text of 34 lines which had already crept into the Mahābhārata when the Parvasaṃgraha was composed. Every one of these 34 lines is the third line of a six-pāda stanza, and as such could not have been original, for the norm of the stanza was four pādas forming two lines. So though found in all Mss. Mr. UTGIKAR did not admit them into the text, which was thus curtailed by him to 2033 stanzas. Since the time of Mr. UTGIKAR more Ms. material has been discovered, notably Ś₁ K₁₋₂ which represents a tradition superior to the three basic Mss. of Mr. UTGIKAR, and a prolonged and intensive study of the Mahābhārata Mss. has established definitively that too much reliance on any group of Mss. is unwarranted and misleading, and that the Parvasaṃgraha figures, even when uniform, can be no sure guide in our effort at going beyond the versions.

The last part of the above paragraph has been purposely italicised by us. It indicates briefly but with force the basic fault of earlier editors like

Mr. UTGIKAR, and of later editors like Prof. P. P. S. SASTRI who have relied too much on the Parvasaṁgraha argument⁵⁰ to base their critical editions. at the cost of the evidence which the manuscripts themselves bring forward. If, in a critical edition, the manuscript evidence of different classes of exemplars is not assessed properly and turned into account, and the constitution of the text is vitiated by an argument which is not supported by the evidence of the Mss. then it ceases to be a critical edition, at least in the sense of 'lower textual criticism' whose main object is to arrive at the most ancient form of the text as reconstructed entirely on the basis of the exemplars of the text available for critical purposes.

So the first and most difficult task before SUKTHANKAR was the classification of the Mss. material and the building up of a pedigree of the different classes of Mss. which could be critically utilized for the purposes of the edition. During the interval of two years which elapsed between SUKTHANKAR's taking charge (August 1925) and the publication of the first fasciculus of the *Ādiparvan* (May 1927) covering the first two adhyāyas, SUKTHANKAR utilized altogether 50 Mss. for collation and use in the critical apparatus, distributed as under : 7 for the Kāśmīri Version in Devanāgarī transcript, 1 for the Maithilī Version, 4 for the Bengali Version, 2 for the Devanāgarī Version of Arjunamiśra, 3 for the Devanāgarī Version of Nilakaṇṭha, 4 for the Dev. Version of Ratnagarbha and 14 for the Dev. Mixed Versions, constituting the Northern Recension ; 2 for the Telugu Version, 7 for the Grantha Version and 4 for the Malayālam Version, constituting the Southern Recension. In addition 2 Mss. containing the text of Devabodha's commentary without the epic text were also collated.

With the aid of this critical apparatus SUKTHANKAR constituted his critical text of the first two adhyāyas of the *Ādiparvan* within less than two years, establishing an unprecedented record for critical editing. For he had to classify the Mss. material, and an important advance made in this was the separation of the archetype K (which represents the Devanāgarī transcripts of the Kāśmīri or North-western version) from other so-called Devanāgarī versions.⁵¹ The archetype K represents a comparatively pure form of the MBh textual tradition and together with

⁵⁰ On this see the Prolegomena.

⁵¹ Foreword to Fascicule I.

the Śāradā forms the *textus simplicior*. The Maithili version stands nearest to the Bengali version, as SUKTHANKAR found, and this latter itself is slightly superior to the Vulgate. Closely connected with the Bengali is the version of Arjunamiśra. Nīlakaṇṭha presents a 'smooth' version generally accepted as the 'Vulgate', and next to this comes the mixed Devanāgarī group. In this manner SUKTHANKAR began to discover the genetic pattern existing between the different classes of Mss. irrespective of their individual idiosyncracies. This is a very important distinction when dealing with such texts of a complicated tradition as the Great Epic. For if we get enmeshed within the individual idiosyncracies first it is impossible to arrive at a fundamental principle in the reconstruction of the oldest text. For evaluating the particular codex it is essential for the editor to make an intensive study of it and note down its peculiarities ; but when we have hundreds of Mss. to choose from, we have to give importance to types of Mss. rather than to number. SUKTHANKAR had therefore 50 Mss. of the Ādi for collation from out of approximately 235 known through catalogues, etc. and of which 107 were in Devanāgarī script, 32 in Bengali, 31 in Grantha, 28 in Telugu, 26 in Malayālam, 5 in Nepālī, 3 in Śāradā, 1 each in Maithili, Kannada and Nandināgarī. Of these about 70 were fully or partly examined and collated for this edition : of these again 60 were actually utilized in preparing the text, and the critical apparatus of the first two adhyāyas gives the collations of 50 Manuscripts.

The very classification of manuscripts which SUKTHANKAR gives on p. iii of his Foreword to the first fasciculus of the Ādiparvan, under the date January 1927, shows that the pedigree of Mss. had been fully worked out ; the separation of the K version from the so-called D version establishes the archetype γ comprising Ś and K ; similarly the archetype ε is presumed by the intimate relationship existing between Maithili and Bengali Mss. in opposition to the so-called D group of Mss. with which they form a minor group leading to the sub-recension γ which may be termed the Central Sub-Recension. In a similar manner the archetype σ comprising T and G Mss. is established. By what tedious process of classification and re-classification of the Mss. this pedigree of Ādiparvan versions was arrived at can only be imagined by those who have actually worked with such complex material or have gone through in detail the *apparatus criticus* given by SUKTHANKAR with his constituted text. We have some means of following the thought-process

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of SUKTHANKAR in the scribbled notes and jottings which he used to make at this time. We reproduce below the short text of some notes made on 14th October 1925, regarding the Principles of Mbh. Text Criticism and Text Reconstruction :

(1) The chief principle of text criticism is to take as a basis the oldest Ms. of that family of Mss. which is recognised as the best; and with all possible consistency to make this authoritative in the edition. But it should be clearly recognised that Mss. of even the best family are not entirely free from errors, corruptions, emendations and innovations. Nevertheless before one rejects a reading of the basic Mss. it ought to be shown that the supposed superior reading must inevitably have stood in the Ur-Northern Recension.

(2) Give preference to a reading found in both the Grantha and Malayālam Mss. when confirmed by the Bengali Mss., even though they stand in conflict with the Basic Mss. In other words, a reading found in Grantha, Malayālam and Bengali is *prima facie* superior to a variant found only in the basic Mss.

(3) As a general rule, no complete verse should be adopted as genuine unless it is found in both the Northern and the Southern Recensions. Exceptions may be considered. When a one-recension verse, for cogent reasons is adopted, it should be printed in small type.

(4) There being two distinct recensions, only one can be printed at a time. When the N and S readings are of equal value, choose, for the sake of consistency, uniformly the N, so as to avoid as far as possible a *samkara* of the recensions. (We give preference to the Northern as the more reliable recension, it being nearer the source of the original. But this is external criticism and a *priori* conclusion).

(5) In the absence of other criteria, the consistency of any one class of Mss. should be the guiding factor in the choice of a reading.

(6) Compare commentaries and note down their *pāṭhāntaras* in the footnotes, in among the v. l.

(7) When there is a change of speaker, the name of the interlocutor should be invariably and consistently printed in the text. When it is not found in the old Mss. or in any of the Mss. at all, then it should be enclosed in square brackets.

(8) No emendation should be made which is not self-evident or inevitable, and which is open to the slightest doubt.

The rough draft of a *Stemma Codicum* reproduced here, on the opposite page, is dated 24th September 1925. It shows the process by which SUKTHANKAR struggled through to that simple but great discovery of the genetic relationship between the recensions and versions and sub-versions

of the Mahābhārata critical apparatus.⁵² The above principles may be compared with those devised by SUKTHANKAR in critically editing the first two adhyāyas of the Ādiparvan.⁵³

The Southern recension agrees with the archetype K more closely than with any other Northern version. Since I have not been able to discover traces of 'secondary inter-relationship' between archetypes K and S, I consider the agreement between these two archetypes as 'primitive'. *This concord is a factor of supreme importance for the reconstruction of the text....* In preparing the constituted text of the first two adhyāyas I have endeavoured to balance the eclecticism advocated in certain matters with rigid conservatism insisted on in others. I have been most averse to reject or correct the readings of good manuscripts. Interpretation has throughout been given precedence over emendation; As a general rule, preference is given to a reading which best suggests how other readings might have arisen. When such a reading was not available the choice fell upon one which is common to (what *prima facie* appeared to be) more or less independent versions and which is supported by intrinsic probability. if we leave out of account documentary evidence, no convincing proof can in general be brought forward to establish either the originality or the spuriousness of the lines.

It will be clear from the above that a great deal of advance had been made over the early scribbled notes. In the first place the principles of textual criticism to be applied to the peculiar conditions of manuscripts connected with the Great Epic had been definitely worked out by the time the constitution of these first two adhyāyas became possible; in the second place we observe that even in this Foreword the same cautious use of language is made as in the Prolegomena published seven years later; the confidence, the meticulous accuracy, the mastery of the whole epic material, is evidenced by the very ring of the sentences which SUKTHANKAR composes in expressing his views. Although the material included in the first fascicule is small compared to the extent of the whole of the Ādiparvan, the amount of work needed to elucidate the principles, to select the Mss. for the critical apparatus, and to constitute the text after classifying them, is something of which India can be reasonably proud. For in the annals of critical editing in the Oriental world nothing similar had been done before; no text-critic in Europe had experience enough to deal with the problems which the wilderness of text-tradition witnessed

⁵² An intermediate stage is seen in Epic Studies III, *Annals BARI* 11.

⁵³ *Foreword*.

in the Great Epic presented; only a prolonged and patient study by a master-mind could penetrate into this wilderness and clear the paths of textual reconstruction. That SUKTHANKAR, standing as he did at the apex of previous attempts, could achieve this distinction within such a short time as less than two years, is a factor which many have not thought about. Only those like WINTERNITZ and LÜDEK who could measure a genius of this type, because they themselves possessed the gift for this work in a similar degree, realized the greatness of the achievement.⁵⁴

It is interesting to note from the Postscript to this Foreword that after the manuscript of the first fascicule had been sent to the press, the Editor was able to secure collations of Śāradā and Nepālī manuscripts, and the collations received by him wholly supported the constituted text, especially regarding the interpolated stanzas, thereby proving the correctness of the method adopted in settling the text.

The first fascicule ends with 1.2.233. During 1928 the second fascicule bringing the constituted text up to 1.21.17 *ab* was published. In this fascicule five additional Mss. have been used, and particularly the Newārī Mss. \tilde{N}_{1-3} . A perusal of the editorial note shows that SUKTHANKAR had finally decided about the position of this \tilde{N} -version; for while \tilde{N}_2 agrees, as a rule with V_1 B group, \tilde{N}_{1-3} strangely enough show frequently features which they share with Kand S, throwing doubts about the true Newārī characteristics of these two.

The third fascicule containing the constituted text up to 1.53.36 was published in 1929. In the history of Mahābhārata studies, for the first time, this fascicule presents the collations of a Śāradā Ms. of the Great Epic. Similarly the new Ms. K_1 added to the apparatus is another unique manuscript, being a Devanāgarī transcript of a Śāradā original very closely allied to \dot{S}_1 . A very important result of the collation and utilization of these two codices belonging to the Kāśmiri version of the Mahābhārata is to show independently the correctness of the constituted text of the Parvasaṃgraha (missing in \dot{S}_1) figure for the extent of the Ādi as constituted by SUKTHANKAR on the basis of the other Mss. The truth of this constituted text is unexpectedly proved by the stanza repeated at the end of the Ādiparvan in \dot{S}_1 , though this codex has a lacuna for the first 25 adhyāyas, and its collation begins only with 26.10. This

⁵⁴ This appreciation will be clear from their reviews and letters which are still on the Institute's files.

corresponds almost *verbatim* with the constituted text of 1.2.96. The death-knell of the Parvasaṁgraha argument is tolled when SUKTHANKAR remarks.⁵⁵

In passing I may point out that even the variations mentioned above show, if indeed the critical apparatus has not done so in sufficiency, that it would be a grave mistake to regard the Parvasaṁgraha as the one immutable factor in the chequered history of the Mahābhārata text. There can, I think, be no doubt that the text of this adhyāya also has been tampered with and designedly altered, from time to time, in various ways, in order to make it harmonize with the inflated versions of a later epoch.

A passing reference should be made here to a *Descriptive Catalogue of the Bijapur Museum of Archaeology*, published by the Government Central Press, Bombay in 1928. Evidently the text of this must have been prepared by SUKTHANKAR during his short connection with the Archaeological Department between 1916 and 1920.

But far more important than this, and almost as important as fascicule 2 of the Ādi published during the same year, is the first of the rightly-famous series EPIC STUDIES. It is published under the title 'Some Aspects of the Mahābhārata Canon',⁵⁶ and is the result of two reviews of the first fascicule published respectively by Hermann WELLER and Franklin EDGERTON. As SUKTHANKAR remarks at the very outset, both reviews are evidently products of a very close study of the text and the critical apparatus. Moreover the problem of the Mbh. textual criticism is a problem *sui generis*, and the principles are to be evolved from an intensive study of the Mss. material and the Mss. tradition. Both reviewers had considerable experience with allied problems, and if they disagree among themselves as to the choice of the reading for the constituted text, then (a) either the principles evolved for textual reconstruction are not quite sound, or (b) there are significant variants which have equal probability (documental or intrinsic) in favour of being accepted for the constituted text. The readings on which these differences of opinion are based are 1.1.19,42,49,62 and 201 and the identification of the hundred sub-parvans of the Mbh. enumerated in the second adhyāya of the Ādi parvan. The very first case of disagreement is the famous

⁵⁵ Editorial Note.

⁵⁶ JBBRAS (NS) 4. 157-78.

verse-foot *vedaiś caturbhiḥ samitām* at 1.1.19 (with v. 1. *saṃmitām*) which WELLER proposes to read as *caturbhiḥ saṃmitām vedaiḥ*. After a brilliant argument SUKTHANKAR points out the reading accepted as a *lectio difficilior* giving rise to all the other variants noticed in the *apparatus criticus*. In passing he remarks : ' It is methodologically wrong to expect to find the original reading by picking out a stray variant which appears to give a better meaning, and shuffling the words of the pāda until the pathyā form turns up ' (as WELLER seems to have done). In the second case discussed SUKTHANKAR has marshalled the argument of documental probability to a nicety showing that the reading *ātmavān* documented, among others, by the whole of B and the whole of S, there being no possibility of a secondary relationship existing between these two versions as a whole. In the third case the rejected reading *saṃkṣipyā cābravīt*, though documented by B and S (except G₁₋₃ M₃) and far superior to WELLER'S *saṃkṣepato* (which is weakly documented), is still not documentally strong enough ; it is not supported by the whole of S ; moreover, the weak point of the variant is that it does not explain how the other readings may have arisen. All these arguments which must have been utilized by SUKTHANKAR in constituting his critical text exhibit his complete mastery of the methods and principles which had to be evolved by himself by patient study in less than two years. And he is not afraid to face the truth : he clearly indicates in this last argument that his own choice of *saṃkṣepam* may be purely a subjective one ; but it is clear that the other two readings are not compellingly superior to replace it, even if the critical text were to be revised. .

The fourth fascicule of the *Ādiparvan*, bringing the constituted text up to 1.90.24 was published in 1930, and it is interesting from the viewpoint of a textual critic, firstly because of the far-reaching divergence, met with for the first time, between N and S as regards the sequence of adhyāyas or adhyāya groups, and secondly because of the stupendous addition found in S in the well-known Śakuntalā episode. Now when there is discrepancy between N and S, it is difficult, as a rule, to give strict proof of the originality of either recension. In such cases the more generally reliable recension must be considered as the original, on the basis of general trustworthiness. This is precisely what SUKTHANKAR does in accepting the credence of the Ś K group as a stop-gap arrangement. Although N is relatively speaking less liable to interpolations than S, it likewise contains some flagrant additions and alterations. It thus follows

that only that portion of the text which is documented by both recensions may be considered as wholly certain and authentic; the rest is doubtful in varying degrees.⁵⁷

Epic Studies III is one of the most virile papers from the pen of SUKTHANKAR,⁵⁸ for it is a slashing answer to the criticism levelled against the first three fascicules and to the problems raised by Dr. RUBEN on the Critical Edition of the Mahābhārata itself. It is a challenge to the methods which he had developed and his deep feeling is expressed in the very opening sentence: 'I am bound to form and express an opinion on the issues raised in the article Schwierigkeiten der Textkritik des Mahābhārata published in the current issue of the *Acta Orientalia* (vo. 8, pp. 240-256), in which the author, Dr. Walter RUBEN has reviewed Fascicules 1-3 of my edition of the Ādiparvan, criticizing at considerable length and in great detail the principles underlying the preparation of the edition and the constitution of the text.' This paper is interesting because it gives him the opportunity of re-examining searchingly these principles and coming out triumphant, and once for all establishing the unquestionable soundness of his methods of reconstruction and classification. A few selected sentences from this vigorous defence of his method will make the subject very clear:⁵⁹

Tested on the touchstone (of the canon of the *caturvarga* of the classical philologist) the critical edition of the Mbh. is found wanting in no less than three items, namely Heuristics, Emendatio and Higher Textual Criticism, the last two of which have been wholly left untouched, according to RUBEN. Even the first has by a long way not been done justice to by the hapless editor. ... As for Emendatio I must plead guilty to having perpetrated so far, perhaps somewhat unnecessarily, minor emendations in 13 instances in about 3800 stanzas. ... Most scholars will, I fancy, sincerely be grateful that I have been so moderate and that I have declared it as my policy to give preference to interpretation over emendation. In speaking at all of 'Higher Criticism' in this connection RUBEN seems to show a lamentable lack of understanding of this objective edition, having mistaken entirely the beginning for the end of the critical work on the Mahābhārata. Higher criticism can begin only after Lower Criticism has done its work, not till then. ... But I imagine, RUBEN does not want to say anything special at all, when he mentions his 'Höhere Kritik' ... The item is probably introduced here merely *pro forma*, as the fourth and last stage of the *ariya-magga*.

⁵⁷ See Editorial Note to this fascicule.

⁵⁸ Dr. RUBEN and the critical Edition of the Mahābhārata, *Annals BORI*, 11259-83.

⁵⁹ *Ibid.* pp. 259-66.

And how would it be possible to apply to the *Mahābhārata* the canons of the Classical Philology *in toto*? Where has the Classical Philology, I should like to know, the necessary experience in dealing with a text with about a dozen versions whose extreme types differ in extent by something like 13,000 stanzas (or 26,000 lines); a work which for centuries has been growing not only upwards and downwards but also laterally, like the Nyagrodha tree, growing on all sides; a codex which has been written in seven or eight different scripts, assiduously and lovingly copied through a long vista of centuries by a legion of devout — and perhaps mostly ignorant and indifferent — copyists speaking different tongues; a traditional book of inspiration which in various shapes and sizes, has been the cherished heritage of one people continuously for several millennia and which to the present day is interwoven with the thoughts and beliefs and moral ideas of a nation numbering over two hundred million? No, the Classical Philology has no experience in dealing with a text of this description, a work of such colossal dimensions and complex character, with such a long and intricate history behind. That is why I have said that the problem of the *Mahābhārata* textual criticism is a problem *sui generis*.

If this were all that SUKTHANKAR had said it would have made him only an impassioned defence counsel with reference to the charges brought against the first three fascicules of the *Ādiparvan* and the methods of textual criticism advocated therein; but like a true scholar whose main strength lies both in his character and his complete mastery of details, he pursues the arguments by a fundamental grasp of the essentials which are necessary for a firm hold on the recalcitrant material to bring them into shape. In the second section of the paper he lays bare RUBEN'S exaggerations and generalisations, unwarranted by the facts which he uses as his basis for them. The next major item of discussion, the four types of constellations (complete agreement between N and S, non-agreement, cross agreement and partial agreement) are discussed with great force and brilliance. This is followed by a provisional *stemma codicum* representing the types of versions utilized for the critical edition. The concluding part is as interesting as the beginning, and one sees SUKTHANKAR at his best as a warrior, unapproachable but withal not destroying, only showing up the weaknesses of the opponent's best moves by a thrust here or a thrust there, or at times parrying. His is not a capricious nature which hides behind heavy-weight authority when such criticism is levelled against him, and finds shelter in saying that the arguments of the opponent are not significant or are totally inadequate; his true character comes out in every statement he makes; it is a desire to be understood properly and he does not brook incompetence or

ignorance ; wherever he meets with them it is his duty to dispel them, and he does so without hurting, but with such a complete control and mastery that all opposition must either give way or look utterly foolish.

The small paper or Arjunamiśra,⁶⁰ however, does not require a detailed notice, as most of the facts here gathered are utilized later in his Notes on the Mahābhārata Commentators.

In 1931 appeared the fifth fascicule of the Ādiparvan, bringing down the constituted text to 1.149.20. The notable omissions from the critical text are the story of the birth of Duḥśalā, the unsuccessful attempts made by Duryodhana to kill Bhīma, an inflated account of the defeat and capture of Drupada, and the notorious Kaṇikanīti, etc. These omissions give rise to a difficult text-critical problem, since they have been rejected *mainly* on the evidence of the Kāśmīrī version : are they to be considered to be omissions in the lacking versions or additions in the others which contain them? The intrinsic evidence is, in SUKTHANKAR's opinion, strongly, against their originality. He says :⁶¹

"Here therefore we are confronted by a very difficult case where the evidence *pro et contra* of documentary and intrinsic probability is equally or almost equally balanced. Now it would not do to form some *a priori* hypothesis as to the interrelationship of the versions and fix the text in terms of some preconceived notion about it. The study of the documents themselves must teach us what their interrelationship is. And they unmistakably indicate that this interrelationship is of a very complex character. In fact I am now fully persuaded that with the epic text as preserved in the extant Mahābhārata Mss. we stand at the wrong end of a long chain of successive synthesis of divergent texts carried out in a haphazard fashion through centuries of diaskeuastic activities ; and that with the possible exception of the Kāśmīrī version all other versions are indiscriminately conflated."

The present statement sums up the importance of SUKTHANKAR's approach to Mbh. textual criticism. In the face of these conflated Mss. the genetic method cannot be applied strictly and it is extremely difficult to disentangle completely by means of purely objective criteria their intricate mutual interrelationships. The results arrived at from a consideration of documentary probability must be further tested in the light of intrinsic probability. No part of the text can be considered really exempt from intrinsic probability when we are dealing with a carelessly guarded fluid text like the one presented by the Mbh. These are some of the findings which emerge from this fascicule.

⁶⁰ Sir J. J. Modi Commemoration Volume, 565-8.

⁶¹ See Editorial Note p. iii.

In the following year the sixth fascicule appeared, covering the constituted text to the end (1.225.19). There is no preface or editorial note with this issue, but SUKTHANKAR must have breathed a sigh of relief in releasing it to the public. For it was now seven years since his assuming the charge of its editorship, and in his own opinion he was behind his time-table. But those who knew the pioneer work he was doing in the Mbh. wilderness, realized with amazement the rapid progress he was making and the new history in Indian scholarly achievement that he was building up. Notwithstanding the principles that he established for the first time for critically editing the Mbh., it took other Parvan Editors even more time to complete their own assignments. Even taking advantage of his ripe experience the Parvan Editors could scarcely make the progress that SUKTHANKAR achieved single-handed, and with all the pioneer's new ground to break.

The year 1933 must rank in the annals of Oriental Scholarship as the zenith and peak of achievement so far as Mahābhārata studies are concerned. For during this year the final fascicule of the Ādiparvan containing the Appendices, Notes, Addenda, etc. and that immortal contribution of SUKTHANKAR entitled the *Prolegomena*, was published. No words of praise can describe the magnitude of SUKTHANKAR's achievement in this essay. For its classic style it stands supreme in the whole field of Indic Research ; not only that ; no other Introduction or Prolegomena can stand comparison with it, in its fundamental grasp, in its objective scientific approach and in the majesty of its survey. Once for all the question of editing texts of the type of the Great Epic was settled in all its fundamental aspects and fresh experience gained in dealing with complicated texts of this nature for which the experience of the western Classical Philology was totally inadequate. By a synthesis of the processes adopted by Classical Philology with the luxuriant overgrowth of the oriental *épopée*, SUKTHANKAR arrived at a number of principles and an objective method of approach where the fundamental grasp of foundational doctrines was necessary and sufficient.

All the great discoveries had already been made and assured by the time the *Prolegomena* came to be written. The three Epic Studies and the various Editorial Notes to the previous fascicules had seen to that. The greatness of the *Prolegomena* lies, however, in the fact, that here, at one place, all the great problems were taken up and systematically reduced to order, by a kind of mathematical logic which is the *sine qua non* of the

objective scientific approach. All criticisms which had appeared in the various reviews were answered with an unswerving logic which has silenced the criticism once for all. However great the critic, he could not be the equal of SUKTHANKAR in the critical handling of the Epic material. The suggestions which some of the continental scholars of emirence had thrown out with regard to the presentation of the text perhaps not from a sense of authority, but certainly through lack of experience in editing such texts—were squarely faced and exposed with a master's touch.

What is it that the Prolegomena does for the Mbh.? In the first place it explains in great detail the fundamental principles of textual criticism which should be applied to texts in India; for the textual tradition in India is vastly different from that of Europe as SUKTHANKAR has so convincingly shown in Epic Studies III. In the second place he has shown, despite the continuous syntheses, interpolations and conflation the mutual relationship existing between the different versions of the Mbh. as versions. In the third place he has shown the ideal method for critically editing Indian texts, and the Prolegomena is nothing if it does not teach a scholar how to edit texts scientifically.

In this work lasting for seven to eight years (the Prolegomena dated August 1933) SUKTHANKAR's scientific achievement reached the height of its glory. Witness, for example, the scientific use of the *sigla* attached to the critical apparatus of Mss. used; to the writer's knowledge, this is the only instance when the *sigla* were really made significant, representing in this case the script characterising the Mss. and the subscript numbers showing the order of their importance in that particular series. Similarly while presenting the variant readings in the *apparatus criticus*, it will be noticed by observant scholars that an invariable rule was followed; and this rule, or rather set of rules has a direct bearing on the pedigree of Mss. utilized for the apparatus. Everything SUKTHANKAR did had a method and an object, and even those who do not know anything of his earlier mathematical training can discover in such matters of small detail his fundamental training as a scientist. He is a scientist first and last and secondarily only an Orientalist or Indologist.

One of the earliest opinions expressed by Prof. LÜDERS on SUKTHANKAR's work has been printed on the cover pages of several fascicules of the *Ādiparvan* and is worth quoting; for LÜDERS, like SUKTHANKAR, was sparing of words, and any praise that he would bestow on a particular

work was not a formal affair, but something absolutely personal and deserving. 'I have been greatly impressed by the arrangements that have been made at the Institute for the collation of the Mahābhārata Mss. The arrangements are such as will ensure great accuracy and perfect clearness in the registration of various readings. Your work seems to me to merit the highest possible praise both as regards the constituting of the text, and the clarity and succinctness with which the Mss. evidence has been recorded. *In my reading of the text I came across no passage of any importance, where I had occasion to differ from you as to the choice of the right reading.*' This is the highest praise that can possibly be bestowed on the work of SUKTHANKAR for there was no scholar in Europe or America better fitted than LUDERS to edit the Grea Epic on the lines on which SUKTHANKAR worked; his training, keen critical acumen, his wonderful all-round acquaintance with almost every branch of Indic philology, and his own contributions which have been considered on all hands as the last word on the particular subjects, give that authority to his words.

There is now a gap of two years before SUKTHANKAR publishes any paper. But it does not signify that he has been resting. The work of the critical edition was progressing on the Virāṭa by RAGHU VIRA and on the Udyoga by Sushil Kumar DE, under the personal supervision of the General Editor who had probably to work as much as the individual Parvan Editors on those sections assigned to them. Moreover he was also preparing for his editorial work of the Āraṇyakaparvan. In 1934 WINTERNITZ published a very detailed review of the Ādiparvan, and in the opening paragraph remarked :⁶²

I have no hesitation in saying that this is the most important event in the history of Sanskrit philology since the publication of Max MÜLLER's edition of the R̥gveda with Sāyaṇa's commentary.'

This review gives in brief the main principles which SUKTHANKAR established with great detail in the Prolegomena. WINTERNITZ further remarks that 'our full approval of the general principles followed by the Editor, does not imply that we agree with him in every detail of the constituted text. Both I myself and other critics have already referred to passages where we should prefer other readings.' Accordingly he cites 24 instances which he came across in reading parts of the critical edition

⁶² *Annals BORI* 1934.

with his pupils in his Indological Seminar from time to time, where he differs from SUKTHANKAR. These do not touch the general principles adopted by the Editor, but WINTERNITZ takes exception to carrying too far the principle of choosing a reading 'which best explains how the other readings may have arisen.' In his *Epic Studies IV*: 'More Text-Critical Notes'⁶³ SUKTHANKAR attempts to meet the main objections raised by WINTERNITZ in the above review. Altogether nineteen out of the above 24 instances are taken up for discussion. SUKTHANKAR's absence of conceit and readiness to understand the other man's point of view are exemplified in this paper. Before actually presenting to us his view of these cases, setting forth the reasons which have guided him in the choice of the readings adopted by him in the critical text, he makes the following generous statement: 'When there are hundreds or thousands of readings to be considered and weighed it is natural that all the selections would not satisfy all readers; and there are bound to be small slips in so enormous and difficult a work as this. But the reader has the advantage of having the full critical apparatus before him, prepared with all possible care and presented in a convenient manner. The reader may easily substitute in the text any reading that appeals to him better.' This is just what WINTERNITZ has done and as it is incumbent upon himself to explain his reasons for the choice of the particular readings objected to, SUKTHANKAR has once again shown that mastery of detail as well as of principles which we expect from him, as a result of his previous studies and publications.

As in Mathematics, here too SUKTHANKAR recognizes two types of conditions: the necessary condition and the sufficient condition. He has assumed that the agreement between K and S is a sufficient condition though not a necessary condition for the originality of the concordant reading. In the reading adopted by him at 1.3.60: *girā vā śamsāmi*, WINTERNITZ prefers the omission of *vā*, according to the principle that agreement between K and S warrants the better text, for $K_0 \bar{N}_1$ S omit it, and besides, it disturbs the metre and the sense. To this SUKTHANKAR replies: there is no agreement here between K and S; K_0 , it is true, represents the version K in a comparatively pure form but K_0 is not K. K_1 is, on the whole, a decidedly better representative of the Kāśmīrī version than K_0 . In the case under discussion we have K_0

⁶³ *Ibid.* 16. 90-133.

agreeing with S and K₁ with Ñ, a case of cross-agreement, which has been overlooked by WINTERNITZ. As for the agreement of Ñ, with S, it had already been pointed out by SUKTHANKAR that even the Mss. of distant Nepal are not wholly free from contamination from some Southern source or sources. It is thus proved that the documental probability in favour of the reading preferred by WINTERNITZ is not at all strong, and it is then proved to be further weakened by intrinsic probability. To the criticism of WINTERNITZ that too much reliance on the principle : adopt the reading which best explains how the other readings have or may have arisen, SUKTHANKAR replies by showing documentally how the reading *nivasatām* adopted by him at 1.3.145 could never be proved to have arisen from an original *nyavasatām* preferred by WINTERNITZ. There are many priceless teachings in this paper ; one of the classical instances is in connection with 1.92.2 : *Gaṅgā Śrī iva rūpiṇī*. WINTERNITZ had remarked : “ Here SUKTHANKAR adopts the reading of Ś₁K₁, against the reading of all other N Mss. The same Mss. Ś₁K₁ have in c *Śayanāt* for *salilāt* of all other Mss. which is rejected. Why should Ś₁K₁ in the first line be of greater authority than in the second line ? ” This is a very pertinent question for a novice in textual criticism, but it is surprising that so acknowledged an authority on the subject like WINTERNITZ should have raised it. Nevertheless SUKTHANKAR considered it his duty to reply to this question, and he remarks : ‘ The configuration of the Mss. as well as the intrinsic merit of the readings are different in the two lines. That is how Ś₁K₁ appear to be of greater authority in the first line than in the second. The *salilāt* of the text is found in all Mss. except Ś₁K₁ (S only transposing the word), and is, therefore, for one thing, obviously far better documented than *Śayanāt* of Ś₁K₁ only. In the second line, therefore, we have practically, only two readings : *Śayanāt* of Ś₁K₁, against *salilāt* of the rest ; therefore the reading of Ś₁K₁ has been rightly rejected. Such is not the case in, the first line. Here we have three nearly independent readings (Ś₁ K₁ *Gaṅgā Śrī iva rūpiṇī* : Vulgate *G. strīrūpadhārīṇī* : *S lobhanīyatamākṛtiḥ* which latter is our fourth pāda). Here, while the two Northern readings are somewhat allied to each other, the Southern reading is entirely different, having very little connection with the Northern. None of the readings can be mechanically derived from the other, and intrinsically they are all more or less of the same value. Such being the case, the Northern tradition was, as usual, followed.’ Leaving aside other issues, this reply and the query raised by WINTERNITZ show the difference of

approach between the two. While SUKTHANKAR considers each case from fundamental principles, independently of other considerations such as a general theory of genetic relationship, etc., WINTERNITZ and other critics, in spite of their deep study of the Epic material are misled by general principles. If the Mbh. textual criticism is a problem *sui generis*, then the general principles are only guiding steps or corner stones ; each case has to be seen from the configuration of Mss. used as evidence, and the general reliability of any set of Mss. is no guarantee that it contains the original or the more ancient reading. The above arguments have been reproduced here only to illustrate the mastery with which SUKTHANKAR worked with his material and his superiority in this line to every other scholar, which WINTERNITZ himself conceded to him.

While he was firm on matters the truth of which he had demonstrated himself entirely to his own satisfaction, SUKTHANKAR was always the first to admit any slip in his work. Thus at 1.218.27 the reading *vyātiṣṭhania* though supported by S₁ K₁, was not admitted into the text for that reason ; it is a misprint, and SUKTHANKAR thanks WINTERNITZ for pointing it out.

During the following eight years SUKTHANKAR's whole life was practically devoted to contributions concerning the Epic. So far as the critical edition is concerned, the *Virāṭaparvan* by RAGHU VIRA was published in 1936, the *Udyoga* by S. K. DE in 1940 and the *Vana*— or the *Āraṇyakaparvan* in 1942. SUKTHANKAR's contribution to the first two as the General Editor is gratefully acknowledged by the Parvan Editors in their Introductions.⁶⁴ Every line of the text and the critical apparatus must have been passed by him, both in the press-copy and the printing stage.

Epic Studies V deals with the Mahābhārata Commentators.⁶⁵ It is divided into two sections. The first deals with chronological notes on the Mahābhārata scholiasts of whom nearly 22 are known by name. Very little is, however, known of all these commentators, and only a few of these *scholia* are available in print. By a gradual progression from the known to the unknown, SUKTHANKAR establishes the relative chronology of some of these commentators, and the final order as given by him is as follows : Devabodha-Vimalabodha-Sarvajña-Arjuna-Nilakaṇṭha, with Sarvajña's date limited to not later than 1300 A.D. whence it follows that Devabodha and Vimalabodha must have lived long prior to this date.

⁶⁴ *Virāṭa* Introd. and *Udyoga* Introd.

⁶⁵ *Annals BORI* 17.185-202.

The second part of this paper deals with the version of Devabodha. SUKTHANKAR was struck by disparity between the text of the Mbh. (C B or K) and the commentary ; not only does this commentary contain words or expressions which do not occur at all in the Vulgate, but it also cites, at times, verses or stanzas which read differently in the Vulgate. Similarly one finds passages and adhyāyas of the Vulgate which are wholly uncommented by Devabodha. By a close inspection of Devabodha's text it is found that it agrees remarkably closely with Ś K sub-recension, particularly on the compelling evidence of the supplementary and entirely superfluous adhyāya at the end of the Ādi, being a repetition of the episode of Śvetaki's sacrifice occurring earlier, with the curious variant Śvetaketu for Śvetaki. That the version of Devabodha also contained this adhyāya is proved by his remark ; *Śvetakīr eva Śvetaketur iti nāma*. This conclusion is also borne out by many other minor and major agreements which are enumerated in the paper.

The same year another paper, and this time a very important one, was published as the sixth in the series of Epic Studies under the special title : The Bhṛguś and the Bhārata : A text-historical Study.⁶⁶ The modest aim of this paper, as SUKTHANKAR expresses himself, is to collect and collate the Bhārgava references in the Mahābhārata, and to give a succinct account of all that the Great Epic has to say about these Bhṛguś. For the sake of convenience SUKTHANKAR studies these legends as they appear in their natural sequence in the Mbh. The results of this important text-critical study may be summarised in the author's own words :

From the legends preserved in our epic, the Bhārgavas appear to be a Brahmin clan more intimately associated with the ancient Kṣatriyas than most of the other Brahmin clans, connected with mostly by ties of marriage. In their conflicts with the Kṣatriyas they appear to the epic bards as irascible sages, domineering, arrogant, unbending and revengeful, but at the same time omnipotent supermen. The epic contains a number of episodes or *upākhyānas* and two independent sub-parvans of the epic the entire Pauloma and a large section of the Pauśya, besides a number of discussions and discourses. There is frequent repetition of these legends on different occasions in the course of the epic. It is also to be noted that the Bhārgavas spring into this prominence all of a sudden

⁶⁶ *Ibid.* 18.1-76.

in the Mbh. and there is no basis for this eminence in the earlier literature. Taking a collective view of all these legends and references, we cannot avoid the conclusion that the Bhārgava heroes occupy a surprisingly large portion of the canvass, filling up much of the available space in the background. Their figures are painted with a thick brush and in vivid colours. Their myths are uniformly distributed over the entire extent of the Great Epic, and throughout represented as *the* people.

The place occupied by these Bhārgava legends unmistakably shows the gradual 'bhṛguisation' of older legends, which occur in the epic itself in two forms, one with and the other without some important Bhārgava element. In the process of converting the popular epic of the Bhāratas into the *Encyclopædia Brahmanica*, the special predilection to the Bhārgava element is highly significant. Intrinsically there can be no question that this element is entirely foreign to the plan of the original saga of the Bhāratas, as it occurs entirely in the episodic material. According to tradition contained within the epic itself Vyāsa could not have been the author of these surreptitious additions and embellishments, nor could his disciple Vaiśampāyana be credited with this particular work. But the next recorded recitation of the Mbh. is by Ugrasravas in the presence of Bhārgava Śaunaka during the latter's twelve-year sacrifice. This lends colour to the hypothesis that the momentous alterations which have occurred in the Great Epic from Vyāsa's 24,000 to the later *śatasāhasī saṃhitā*, is due to the gradual 'bhṛguising' of the epic material. . . . The influence of the Bhārgavas in the narrative portion of Mbh. is very evident and can hardly be disputed. Their special connection with Dharma and Nīti is also established by Śukra and Bhṛgu.

The infiltration of masses of Bhārgava material in the shape of Bhārgava myths and legends, the manner of its treatment, and even that strange admixture of the Epic with the Dharma and Nīti elements, which latter especially has so long puzzled many inquirers into the genesis of the Mbh., thus appear to find a simple and straightforward explanation of an important unitary diastasis of the epic under very strong and direct Bhārgava influence. The process of expansion thus begun must have continued subsequently, first by the Bhārgavas themselves and later under their supervision, and it is likely that the remodelled Bhārata, like the Vedas, now elevated to the rank of the Fifth Veda, must have remained for some time in the exclusive possession of the Bhārgavas as their close literary preserve. This fact would explain the apparent homogeneous character of this heterogeneous mass. It all came from different hands, from out of the same mould. The colossal success of this Bhārgava recension of the ancient Epic of the Bhāratas—a success which in one sense was richly deserved—was the cause of the neglect and subsequent disappearance of the original heroic poem, which must have still existed at the time of composition of the Āśvalāyana Gṛhya Sūtra.

It will thus be noticed that this text-critical study has lifted a corner of the veil which covers the hoary history of the text of the Great Epic. SUKTHANKAR thereby established a possible ground for explaining all the contradictory facts connected with the growth and development of the Mbh. The response to this theory was immediate and has led to further investigations which have added to the expectations raised by SUKTHANKAR when he closed this paper with the words : ' The further we pursue the study of the traces of Bhārgava influence the clearer, it seems to me, will become the history of our Mahābhārata, the Great Epic of Bhāratavarṣa.'

The only recorded paper by SUKTHANKAR for 1937 is the In Memoriam Professor Moritz Winternitz (1863-1937).⁶⁷ It is really a brief *résumé* of the Mahābhārata work that WINTERNITZ did for nearly half a century, and is altogether one of the best obituary notices on the lamented Professor.

It is, therefore, a matter of great regret that WINTERNITZ passed away before a discovery of capital importance for Mahābhārata studies was accidentally made by Manyavara Guruji HEMARAJ Panditjiu, the distinguished Director of Public Instruction of Nepal, of a new Nepālī Ms. of the Ādiparvan. The manner of its discovery and its importance is described in Epic Studies VII: The Oldest Extant Ms. of the Ādiparvan.⁶⁸ The Rajaguru sent complete collations and specimen photos for the use of the Institute. The Ms. is on palm-leaf, written in a uniform hand in old faded ink, and contains only the first parvan of the Mbh. The average length of the folio is '21" × 2½"' and each folio contains uniformly 7 lines of writing. Although the Ms. is not dated, its old appearance and the script which comes closest to the script of Tafel VI, No. XI (Cambridge Ms. No. 1891, 2 of A.D. 1179) authenticate the high antiquity claimed for it. This is also supported by internal evidence; the best proof is that it is almost entirely free from those modern accretions which are given in Appendix I of the Ādiparvan Volume, as also in great part from those other smaller insertions which are listed in the foot-notes. More astonishing still is the fact that out of the textual emendations hazarded by SUKTHANKAR, fifty per cent. are

⁶⁷ *Ibid.*

⁶⁸ *Ibid.* 19. 201-62.

actually documented by this Ms. As SUKTHANKAR remarks:⁶⁹

It is therefore no exaggeration to say that this remarkable Ms. opportunely affords welcome support to the Critical Edition in most crucial matters. Moreover many of the variant readings of the new Ms. are difficult and obscure, marking out its text as distinctly archaic. Finally, in many of its readings it agrees fairly closely with a certain other Ms. from Nepal which is symbolized as \tilde{N}_3 in the critical apparatus of the *Ādi.* and which is again the oldest dated Ms. of the *Ādiparvan.* The tradition is therefore fairly complete and well attested.

The greatest value of this Ms. lies in its corroboration of the constituted text of the Critical Edition. Indirectly it attests and justifies, as an independent witness, the principles according to which the reconstruction of the epic text is achieved, thus placing the constituted text on still surer foundations.

One phase of SUKTHANKAR's triumph consisted in converting his erst-while critics into staunch supporters and followers of the methods and principles evolved by him. The discovery of this important Ms. is the second phase and the culminating point for the full vindication of the Critical Edition of SUKTHANKAR. This fortunate discovery has set the final seal of approval on his editorial work.

Although this Ms. is practically free from the long and short insertions of the Vulgate, it is not entirely devoid of small infiltrations as SUKTHANKAR demonstrates, such as App. I, Nos. 12, 33 and 58 and over 87 single-line insertions. All these are uniformly found in the majority of N Mss. It also throws an interesting side light on the indirect way in which the text gets gradually inflated. Its superiority over \tilde{N}_3 is proved by its lacking about ninety per cent. of the insertions of \tilde{N}_3 . The unique readings of this Ms. bear out nearly half the emendations made by SUKTHANKAR in his constituted text. Out of the total 36 emendations made 18 are corroborated by this Ms. Of these 13 are cases of hiatus. It was precisely on this point that A. B. KEITH differed from SUKTHANKAR when he said: 'We need not, therefore, accept as a necessarily correct theory the view that we are to restore hiatuses, whenever we find variants in the Mss., which might be explained by assuming that they are the efforts made by scribes, who were not accustomed to hiatus to remedy the irregularity.' SUKTHANKAR's reply is characteristic: 'Whether the said view represents a correct theory of Mbh. text-reconstruction or not may be best judged from the circumstance that out of eighteen emendations which are actually documented and attested by this new Ms., not less than thirteen were made just on the ground of hiatus.'

⁶⁹ *Ibid.* 19.

The whole of the subsequent discussion is taken up with replying to KEITH's criticism. This paper marks the close of a period and shows the vast difference that exists between the mastery of SUKTHANKAR and the general acquaintance of others with epic material. One need only remember the force of the following words recorded in the Prolegomena, to understand the gulf that existed between the attainment of the General Editor and the critical reader, including the learned reviewers :⁷⁰

Another high authority, while full of apparent admiration for the way in which the work is being done at present at the Institute, has with much pathos and eloquence deprecated this hastily prepared, eclectic text. All that we need do at present, according to this scholar, is to reprint the Vulgate, giving merely the *variae lectiones* of the manuscripts collated and leaving each individual reader to constitute his own text unhampered and uninfluenced by the obtrusive personality of some editor who stands like a monitor between the reader and his author. The learned critic is evidently of opinion that any average reader, who picks up an edition of the Great Epic for casual study is better qualified to reconstruct the text than the editor who has made a special study of the problem. But we need not take it too seriously.

The rest of this passage is unapproachable for the dignified manner in which this learned authority and others like him are admonished, and is worth reading by all those who have any doubts about the scientific background of the critical edition. For even the best of critics like WINTERNITZ who had devoted almost 50 years of his life to the problems connected with the Great Epic has been proved by the evidence of this unique Nepali Ms. to have been wrong in his differences with SUKTHANKAR. In 12 places where he objected to the text of the critical edition, the text is supported by the documentary evidence of this Ms.⁷¹ No one doubts now that the discovery of this valuable Ms., so consequential for the text-criticism of the Ādiparvan, would certainly have delighted the heart of this veteran scholar, who took a passionate and life-long interest in epic studies. All the criticism of so acute a scholar as KEITH is slashingly but with scholarly dignity answered point by point, with the incontrovertible evidence of this unique Ms.

It is no wonder, therefore, when recently Franklin EDGERTON wrote :⁷²

March 1, 1943.

I have just received the news of the death of Dr. V. S. SUKTHANKAR. It is not only a very grave personal loss to me ; I counted him one of my best friends, and had come to feel a very deep respect and even affection for him as a man.

⁷⁰ *Prolegomena*, p. LXXXIII.

⁷¹ *Annals BORI* 19.

⁷² *Ibid.* 24. 136.

But the loss to scholarship is immeasurable, and, naturally, far more important. *I am appalled at the thought that it will now be necessary to entrust the Mahābhārata edition to others.* Few persons now living are as well gifted by nature as he was with the peculiar combination of intellectual qualities needed for this work. And literally not one has had the experience which he had, and which is second in importance only to that native ability. He had arrived at a point where so many things had become almost automatic to him, like second nature; things which even those of us who have helped in the edition cannot control as he did, though we may have painfully struggled towards an approximation of a few of them. Now, just when he could have exploited to the full this unique combination of knowledge and experience—*jñānam savijñānam*—he is cut off in the midst of it.

No higher tribute can be paid to a genius who was unique in his field and unrivalled for his courtesy to those who differed from him.

The paper referred to above was published during 1938. In 1939 he contributed a paper on the Nala episode and the Rāmāyaṇa⁷³ in which he conclusively shows that the Sudeva soliloquy in the Nalopākhyāna of the Mbh. must necessarily have been borrowed by one of the redactors of the Great Epic from the Rāmāyaṇa, since the passage in question is a misfit in the Mbh. context. It is shown that this Nala passage is not the only passage for which a parallel exists in the Rāmāyaṇa and in the parvan-survey SUKTHANKAR refers to the Rāmopākhyāna occurring in the Vana— or Āraṇyakaparvan. This topic is, however, taken up for a separate study as the last of the Epic studies, published during 1940.⁷⁴ Here SUKTHANKAR's researches confirm JACOBI's assumption that the Rāmopākhyāna is indeed an epitome of the work commonly known as Vālmiki's Rāmāyaṇa.

Just as SUKTHANKAR's studies in Bhāsa were based both on first-hand acquaintance with original as well as critical material, the latter of which he included in a special bibliography, so also in the case of his epic studies, he had started compiling a card index of all articles, notes, pamphlets monographs and books dealing critically with epic questions. The index so prepared by SUKTHANKAR is still lying at the Bhandarkar Oriental Research Institute, and has incidentally paved the way for PUSALKER's, survey of Epic and Puranic Studies published in the *Progress of Indic Studies*. This bibliography, though probably not quite complete, is yet indispensable to critical scholars dealing with the Great Epic.

⁷³ *A Volume of Eastern and Indian Studies* presented to Prof. F. W. THOMAS.

⁷⁴ *P. V. Kane Festschrift*.

In spite of his preoccupation with all this great work SUKTHANKAR never limited his interests ; during 1933-34 he delivered a series of lectures under the auspices of the University of Bombay as the Wilson Philological Lecturer under the title ' Life and Growth of Languages '. Under the new arrangements for postgraduate instruction in Poona he continued to guide M.A. students in Ancient Indian Culture, delivering weekly lectures in the Institute. He was several times Sectional President at the All-India Oriental Conference. During the last of these occasions, in 1940, he allowed his address to be published in the *Bhāratīya Vidyā*,⁷⁵ and any one reading it is struck at once by his lively spirit and freshness of approach which always kept him alive to new ideas and impressions.

Two short papers were contributed by SUKTHANKAR under the general title EPIC QUESTIONS. The first of these is the opening article in the first volume of the *Bulletin* of this Institute and is connected with the reading *Hāsyarūpeṇa Śaṃkaraḥ* as opposed to *hamsarūpeṇa cēśvaraḥ* of the Vulgate.⁷⁶ The paper itself has the sub-title : Does Indra assume the form of a swan ? The paper conclusively proves that the *hamsa* incarnation of Indra is nothing but a canard. The second of the series is, unfortunately, the last paper to be published by SUKTHANKAR, and deals once again with the Parvasaṃgraha figures.⁷⁷ It is an interesting contribution and deserves careful reading by a critical scholar who would like to deal with Mbh. textual criticism.

The short introduction to the *Āraṇyakaparvan* is very interesting and instructive. Dated in August 1942, it contains however his experience of the past seventeen years of work on the Critical Edition. As a result the language clearly expresses the fundamental principles, which may be quoted here just to show the way in which he was making himself approachable to a larger group of scholars who are not specialists :⁷⁸

When the Śāradā-K version (which is the best Northern version) and the Southern recension are placed *vis-à-vis*, we can in general reconstruct the original with confidence, barring a certain number of minor verbal fluctuations in the shape of synonymous phrasings, which remain indeterminate without affecting the construction or obscuring

⁷⁵ *BV* 3. It is reprinted again in the *Proc. and Trans. of the All-Indi. Or. Conf.* Tirupati, pp. 593-609.

⁷⁶ *Bull DCRI* 1. 1-7.

⁷⁷ *Silver Jubilee Volume of Annals BORI* 23.

⁷⁸ Introduction, p. xviii.

the sense. The concord between Śāradā-K version and the Southern recension in point of general content is striking and forms a sure basis for constituting a single text. Contamination between the K version and the S recension cannot be proved, but contamination between the B-D version and the S recension is not impossible. The agreements between the B-D and S recension have nevertheless been as a rule utilized to arrive at a tentative stop-gap, based on the indications of documental evidence. But it should be noted that the K-S agreements have far greater documental authority and probative value than the B-D-S agreements.

Let me put the matter in a slightly different way. The highest documental probability we can demand and expect is when all Mss. of our critical apparatus—which is the same as saying, all our different versions—agree on a reading or a feature. We must accept this as the original; *at least we do not wish to question it, at present.* In the absence of such complete concord, the next best combination is the agreement between the Śāradā version and the Southern recension (against B-D). Third in importance is, in my opinion, the concord between the Southern recension and the Bengali-cum-Devanāgarī version (against the Śāradā). Fourth in order stands the agreement between only Northern versions or only Southern versions *inter se*, which I consider, in general, as of equal value. With the proviso that a passage, or a stanza or even a little line which is not necessary to the context, may be rejected, if it is actually omitted entirely in even one of the important versions, since as experience has shown, the chances of conflation are always very much greater than those of accidental or intentional omission.

The italicised words will indicate a new phase that was gradually coming over SUKTHANKAR. While still interested in the Critical Edition of the Great Epic to which he had devoted the best part of his life, he was slowly being drawn towards the content of the Mbh., not as it was in the constituted text only, but in the entire Mss. tradition. There was a double approach to this problem, or to be more precise, a threefold approach; in the first place the mass of accretion, interpolation, conflation, etc. was symptomatic of a certain phase in the life of the nation where the original text grew into these gigantic proportions. Then again there was a central theme which was pervading the whole of the epic and around which it moved. And finally there was the question of higher criticism, which could come in only after lower criticism had done its work properly.

When SUKTHANKAR says: 'at least we do not wish to question it, at present', he indicates thereby the possibility of going behind this constituted text—although a distant possibility—and of arriving at the

original. But then whether an objective method could be devised for such a restoration depended entirely on certain other studies which were being attempted at this time. What is the genesis of the significant variant readings in the Mbh. textual tradition? Could they be fixed in their space-time context, and thereby explain the local divergences in their temporal evolution? And if this were possible, could we get behind the constituted text, especially when it was less than certain, and arrive at a more certain text? By mere objective criteria could we devise methods which would enable us to analyse the elements which were welded into that great synthesis which is the Mahābhārata?

Great things were in the offing when SUKTHANKAR penned these paragraphs. His lectures on the three-dimensional view of the Great Epic⁷⁹ were assuming their final shape at this time; a good deal of work was being done in the statistical analysis of the significant Mbh. variants.⁸⁰ What the results of all these combined studies would have been, it is too premature to say. But that tragic death which cut short his life when he was at the very height of his powers and on the verge of discovering new domains in the critical study of the Epic has dealt an irreparable blow to further research in these directions.

On the 21st of January 1943, just two weeks after the Silver Jubilee function of the Bhandarkar Oriental Research Institute had been celebrated, he laid down his mortal coil in the service of the Great Epic of the Bhāratas.

In writing this epilogue to a full life of research where the highest reaches of knowledge possible for a human being were attained by SUKTHANKAR, one is poignantly reminded of the concluding part of the Introduction which reads like a farewell.⁸¹ But SUKTHANKAR's voice will continue to draw the best scholars to a study of the Great Epic

⁷⁹ Two of these lectures were actually delivered before the University of Bombay on 8th and 15th January 1943. The third was due on 22nd January, and the audience was actually waiting for him when the news of his death reached Bombay on that day.

⁸⁰ A discussion of these problems was to take place on 21st January 1943 between the writer and Dr. SUKTHANKAR, and the last note which he wrote on 20th January 1943 was to fix the appointment from the 20th to the 21st January, as the facsimile of this note reproduced here indicates.

⁸¹ Many scholars have expressed this view in their letters to the Honorary Secretary of the SUKTHANKAR Memorial Edition Committee.

which has now become the great epic of SUKTHANKAR's own life. . This paper can only be concluded fittingly in his last public utterance, at Poona the inspiring words of which still continue to ring in the ears of those who listened to him on that unforgettable 5th January 1943 :⁸²

' There is a danger that in our pseudo-scientific mood we may be tempted to discard this great book, thinking that we have outgrown it. That would be capital blunder : That would in fact mean nothing but an indication of our will to commit suicide, national suicide, the signal of our national extinction. For never was truer word spoken than when the late German Indologist Herman OLDENBERG said that "in the Mahābhārata breathe the united soul of India, and the individual souls of her people." And why is that ? Because the Mahābhārata is the national *saga* of India. It is, in other words, the content of our collective unconscious. And just for that reason it refuses to be discarded. We must therefore grasp this great book with both hands and face it squarely. Then we shall recognize that it is our past which has prolonged itself into the present. *We are it !* I mean the real WE ! Shall we be guilty of strangling our own soul ? NEVER.'

December 1943.

S. M. KATRE.

EPIC STUDIES : SECOND SERIES

By

PROF. F. EDGERTON

[The following formed part of Professor EDGERTON's Introduction to the Critical Edition of the *Sabhāparvan*, prepared by him for the B. O. R. Institute. Dr. V. S. SUKTHANKAR, the General Editor, had suggested, and Prof. EDGERTON agreed, that it should be published separately. Accordingly, the same is being included here under the heading "Epic Studies", and it is designated "Second Series" to distinguish it from the "First Series" of eight papers contributed by Dr. SUKTHANKAR under the same heading.]

No. 1 : GRAMMAR AND SYNTAX

(In the *Sabhāparvan*)

Here will be noted such grammatical phenomena as seem to me worthy of attention for any reason. Doubtless the list could be extended. Certainly I have made no attempt to list all forms which are contrary to the rules of Pāṇini, as I daresay my choice is somewhat subjective. Not all the cases are exclusively "epic". But all seem to me of enough interest, on the ground of rarity or irregularity, to deserve at least brief mention.

Samdhi.

Hiatus between vowels occurs especially between halves of the same line, that is, between separate pādas. Strictly speaking, from the standpoint of the original composition, this should doubtless not be considered hiatus, since each pāda was no doubt a separate unit of speech, closing with a pause, as was certainly the case in the Veda. Yet the cases are not numerous; and in many, perhaps most, of them attempts are made in various Mss. to bridge the hiatus by different changes. The 18 cases noted are: *ca āmantrya* 2.8cd; *ca ugrasenaś* 4.19ab; *ṣarmāṇi aṣṭau* 5.12cd; *paṇyāni upadhābhir* 5.104cd; *ca ṛtavah* 11.27cd; *sarve ācāryapramukhā* 31.6ab; *ca ṛddhyā* 32.13cd; *sarve abhyagacchan* 40.11cd; *hanti abhimānaś* 45.14ab; *ca abhitah* 48.19cd; *ca abhyagacchan* 48.32ef; *tasya anukarṣam* 49.6ab; *ca ubhe* 55.13cd; *yājñaseni ekāmbarā* 60.27ab; *vācā anujñātā* 61.33ab; *te ariṣṭam* 65.2ab; *bharataśreṣṭha* (probably voc., less likely, nom.) *idam* 66.3cd; *sajane ajñātāḥ* 66.19ab, repeated 67.10ab.

In the interior of pādas I have noted only eight cases : *saha āsate* 4.7b : *pramlocā urvaśī irā* (twice !) 10.11b ; *kṛtavarmā anādhṛstīh* 13.57c ; *naiva ṛtvīn* 34.10a ; *eḥavastrā adhonīvī* 60.15a ; *trayaḥ kileme adhanā bhavanti* 63.1a (at the cesura in a triṣṭubh) ; *sadā uttamapūruṣāh* 65.8d. Again the Mss. frequently try to bridge the hiatus by secondary changes.

Secondary crasis or double saṃdhi.

paundrako vāsudeveti 13.19c, for °*deva[h]* iti.

haṃseti dībhaketi ca 20.31b, for *haṃsa[h]* iti *dībhaka[h]* iti.

sendrāpi devā 60.30d, for *sendrā[h]* api.

codyamānāpi 61.28b, for *codyamānā[h]* api.

eṣa vai dāsaputreti, 63.29c, for *dāsaputra[h]* iti.

Initial ā absorbed (*abhinihita*) after final *e* or *o* :

brahmaṇo 'jñām 20.34c.

rdhyato 'tmānam 45.16c.

te 'tmānam 68.8c.

There is little else that concerns phonology. Three times a feminine ī-stem in composition has the final ī shortened, in places where metre requires, or at least favours, a short. While these might also be considered morphological changes (shift from ī to i declensional type), they are doubtless primarily phonetic : *devaḥinandana* (for *devaḥī*°), 22.31b and 56b, both times at the end of a śloka ; in this position a long syllable is never tolerated. — *gāndhāriputrasya* 63.19c, at the beginning of a triṣṭubh, the third syllable of which is regularly short when the cesura is postponed, being prevailingly long only when the cesura follows the fourth syllable (*JAOS* 59.163). Here to be sure we have one of the rare cases in which the cesura follows the sixth syllable. But they seem to tend to follow the quantitative scheme of those with cesura after the fifth ; certainly not of those with early cesura. The shortening of ī is probably to be considered metrical.

An extraordinary case of *haplology* has been assumed, not without some misgivings, in 18.3b *cāvayorjunah*, for *cāvayor arjunah* ; see note on the passage in Addenda.

Morphology

A few stray matters concerning noun and pronoun inflection :

The nom. pl. of an *i*-stem is used as accus. in 48.9d *rāśayah* (for *rāśīn*).

The nom. pl. of the stem *ap* is used as accus. in 49.8d *āpah* (for *apah*).

From a masculine *in*-stem we have a curious accus. sg. in *-im*, based on proportional analogy, after the nom. in *-i* (following the feminine *i*-declension !): *prāṭikāmīm* 60.1c.

The stem *śṛṅga* has masculine gender, instead of the regular neuter, in 19.18b *śṛṅgaṃ sumahāntaṃ* (accus. sg.).—Similarly *caila*, regularly neuter, is masculine at 47.3a.

The stem *daivata* "deity" is regularly neuter; masculine gender is authorised for it lexically, but has not been discovered in literary occurrences. In 5.90b it seems to be masculine.

The dative form *mahyam* is prakritically used as genitive, instead of *mama*, in 70.20c: *jīvitapriyatām mahyaṃ dhig imām kṣeśabhāginīm*, "fie upon this my love of life, which has resulted in affliction!" It would seem forced and improbable to construe the form as dependent on *kṣeśabhāginīm*, "which has resulted in affliction for me", in view of the position of the word.

Verb forms in this book have more interest than noun forms.

We find first a considerable number of unaugmented preterites, nearly all imperfects, but one aorist (the last in the list). Naturally many Mss. usually remove the irregularity; but there is little doubt that in most cases the original contained it: *jñāpayat* 12.34d; *prajāyetām* 16.34c; *abhiśīncatām* 16.49d; *samarcayan* and *kurvan* 19.20b and 20c; *gr̥hṇīta* 19.43c; *pratigr̥hṇīma* 19.50c (probably imperf. rather than present with secondary ending, cf. below); *bhrāmayad* 22.5c; *upayād* 27.14d; *kurutām* 40.2d; *icchat* 41.3d; *sāmanuvrajan* 42.40d; *sabhājayata* 42.52d (from the quotation in PW. it would appear that the imperfect forms of this peculiar denominative are regularly unaugmented); *parigr̥hṇītām* 46.33c; *prayacchetām* 48.42a; *vibrūta* 61.52c; *gamayad* 66.4c; *vyavaśṛyanta* 72.22c; *anujñāsiṣam* 72.26d.

Irregularities of personal endings also occur. Especially frequent is confusion of the primary I plural ending *-mas* with the secondary (also perfect, and subjunctive-imperative) ending *-ma*. Thus we find *-mas* in the perfect *śūsrumaḥ* 14.11f, 16.2d, 64.1d; in the optative *kuryāmas* 58.27c; and in the subj.-impv. *karavāmas* 65.1a. Contrariwise, we find present or future forms in *-ma*: *icchāma* 6.17c; *sādhayiṣyāma* 18.3c; *nihanma* 19.11d; *arcāma* 35.11b; *raṃsyāma* 42.49b; *sma* 52.10d (not at all likely to be the particle *sma* in my opinion). In a few of these, notably *nihanma* and *arcāma*, metre would make the regular form

impossible in the present position of the word. On the other hand, several of the forms occur at the end of lines, where obviously metre could not be concerned.

The properly secondary ending *-dhvam*, of the 2 pl. middle, is thrice used with presents : *manyadhvam* 20.2b ; *jānīdhvam* 34.3a ; *vivadadhvam* 63.17b.

Strong and weak present stem-forms are interchanged, strong being used for weak in *bravihi* 22.34b and 25.13c, and weak for strong in *ādadmi* 20.25b.

Unusual present stem formations : *prayujmahe* 35.15d (vedic), — *pratyapīṣan* 42.27b (*apīṣan* AV., WHITNEY, *Roots*). — *krndhi*, 2 sg. inv. of *kr̥t* “cut”, 64.10d (quite without recorded analogy ; I suspect influence of *kr̥dhi* from *kr̥*, regarded as an aorist, see below). — *vitāṇ-ḍānāḥ* 33.4d, pres. mid. pple, “disputing”, cf. *vitāṇḍā*, noun ; the *Dhātup.* has *tanḍate* (thematic !) “strike”. — *archati* (for *rcchati*) 19.46b. Thematic (1st class) present forms of *dā* (perhaps hardly worth noting since they are familiar from the Veda onwards) : *adadad* 48.22c ; *ādadeyaṃ* 71.17a.

Future : *glahīṣyati*, from *glah* “play at dice”, apparently *hapax legomenon*, but obviously based on the analogy of *grahīṣyati* from *grah*.

Perfect, without reduplication, *pravepāte* 16.35d (cf. *RENOU*, *Gr. Scte.*, §333c).

Aorist : *kr̥dhi* 60.30b, and *kr̥thāḥ* 40.22d, 53.5d, 65.10d (always with *mā*). Also with *mā*, *majjīḥ* 55.9d ; *kopīsthāḥ* 59.3c ; and *khanīḥ* 59.8d.

Active endings with clearly and definitely passive forms : *dahyanti* 28.22d ; *dhmāyati* 45.30d ; *dr̥śyāmi* 62.5d. Other violations of Pāṇinian rules regarding *parasmaipada* and *ātmanepada* endings in particular roots are so frequent in the epic that it has not seemed necessary to list them.

Gerunds. The ending *-tvā* is applied to roots compounded with preverbs or other elements, not only causatives and denominatives in *-aya-* (where it is specially frequent, see *EDGERTON*, *Language*, 13.108), as in *nivartayitvā* 2.20a, but also in *ādikṛtvā* 52.17d, and *abhyutsamayitvā* 63.12a. In the last we have the further irregularity that the gerund is based on the present stem, not on the root, as regularly in Buddhist Hybrid Sanskrit and Pāli-Prakrit (see *ibid* 111).

Contrariwise, simple roots may take the suffix *-ya*, which belongs regularly to compounds. Thus *gṛhya* 3.3c; 17.4c; 46.25d; *pūjya* 42.38c; and *vācya* 2.11a; 23.6a; 42.53d; 52.34d. This last is always preceded by *svasti*, which however must be regarded as a separate word, not as compounded with the following form of *vac-*, since it is sometimes separated from it by other words.

One alleged infinitive form, the monstrously impossible *ījitum* occurring in the vulgate for our *īhitum* 30.26c, and hence quoted in our grammars and dictionaries, must now be rejected from the text; see my note ad loc. in Addenda.

An irregular causative form *dīkṣ* occurs in 30.21a *dīkṣāpaya*. It is the only form of its kind cited in PW from this root.

Syntax

A few stray cases will be mentioned of syntactic constructions which seem worthy of note.

An absolute, or semi-absolute genitive (cf. SPEYER, *VSS.* §212) seems to be found in 34.13 :

asya dharmapravṛttasya pāṛthivatvaṃ cikīṣataḥ
kaṭān asmai prayacchāmaḥ so 'yam asmān na manyate.

“Since he was proceeding according to dharma and was desirous of effecting kingship, we give tribute to him, but he does not respect us.” The genitives may be felt as more or less depending on *prayacchāmaḥ*; but the occurrence of the dative form *asmai*, “to him” just before this verb, makes such a construction at least harsh.

In 41.22, 23 and 25 (essentially one case, the two latter patterned after the first), I see no way of construing the genitives except as absolutes :

icchataḥ sā hi śiṃhasya bhīṣma jīvaty asaṃsayam.
icchatām pāṛthivendrānām bhīṣma jīvasy asaṃsayam.
icchatām kila nāmāhaṃ jīvāmy eṣām mahikṣitām.

A genitive with the force of an ablative (SPEYER *VSS.* §73) is apparently used in 13.43c : *svapuram śūrasenānām prayayau*, “he went from the Śūrasena country to his own city.”

In 4.4c, *ṛṣreṣṭho* seems to be a “nominative pendens”, without grammatical construction.

A vocative appears to be used with a third-person verb in 6.2a : *bhagavān nyāyam āhaitam* : see note ad loc. in Addenda.

A singular verb occurs with a following dual subject in 5.106d *dīyate madhusarpiṣī*, but the case is peculiar; see note ad loc. in Addenda —In 6.18d many Mss., including Ś₁ and K₁₋₃ read *śrūyatām....sabhāḥ*, a singular verb with a following plural subject. I am still not sure that this reading should not be adopted; but it must be admitted that it would be very bizarre, and I have finally adopted the variant *śrūyantām*.

In 66.31cd occurs an example of *mā* with the future: *mā..... bhaviṣyasi*, "lest you become....."

Twice, in 67.5d and 15d, occurs the optative form *iyāt* with the sense of a preterite; see note ad loc. in Addenda and references there quoted.

Noteworthy is the occurrence of the enclitic *enam* (documented uniformly by all Mss. without exception) at the beginning of a pāda in 17.15a.

No. 2 : METRE

(In the *Sabhāparvan*)

There are no prose passages in the *Sabhāparvan*. There is a single verse (38.40) composed in the metre called *halamukhī*, which consists of four pādas each with the scheme — ◡ — ◡ — ◡ — ◡ — . There are 151 triṣṭubh-jagatī stanzas, one of which contains six pādas. The rest, 2238 in all, are anuṣṭubh or "epic śloka"; 82 of these contain three lines or six pādas.

As to the structure of the śloka stanzas, I have nothing to add in principle to HOPKINS's treatment in *The Great Epic*. It seems worth while, however, to list the few hypermetric śloka pādas which occur. They all belong to the regular type treated by HOPKINS l. c. 252; the added syllable appears invariably as one of two initial shorts, and the first five syllables are always ◡ — ◡ — ◡ — ◡ — , without regard to the character of the cadence. All occur in the first half of their respective lines, never in the second.

- anugamyamānaḥ śuśubhe*, 2.17c.
- ghṛtapāyasena madhunā*, 4.2a.
- virajombaraś citramālyo*, 7.5c.
- aditir ditir danuś caiva*, 11.29a.
- vyajayad dhanamjayo rājan*, 24.11c.
- upanīyamānaṃ yuktaṃ ca*, 33.26c.
- upagīyamānā nārībhir*, 52.35c.
- vidurādāyaś ca tām ārtam*, 70.22a.
- śikāṭā vapan saavyasācī*, 71.4a and 14c.

As to the triṣṭubh-jagatī stanzas, I may refer to my article on "The epic triṣṭubh and its hypermetric varieties". *JAOS* 59. (1939) 159-174. I have shown there that epic triṣṭubh-jagatī lines generally belong to two radically different types, to one (the older) of which belong all those which occur in the *Sabhāparvan*. (The *locus classicus* for the other, younger type is the *Viṣṭāparvan*, where it occurs exclusively; but *Ādi* and *Udyoga* also contain some examples.) The regular (non-hypermetric) triṣṭubhs of *Sabhā* are divisible into two sub-divisions, those which have the cesura after the fourth syllable, and those which have it after the fifth. The latter are much less numerous than the former. The quantitative schemes of the two sub-types differ rather strikingly (*l.c.* 163). There are also some few lines which have cesura after the sixth syllable, or which seem to have no cesura at all.

In this same article I also analysed and classified the hypermetric triṣṭubh-jagatī pādas, showing that they fall into three classes, the first being much the commonest. This most important type consists of a combination of a first half-pāda of five syllables, appropriate to the "later" cesura (after the fifth syllable), with a second half-pāda of seven syllables, appropriate to the "earlier" cesura (after the fourth), thus making twelve syllables in all in a triṣṭubh line (one more in a jagatī). This type is a Vedic inheritance. It occurs in the *Sabhāparvan* 46 times. The first occurrence is 51.11a :—

anartham artham manyase rājaputra.

The others are : 51.12a, 14c, 17a, 24a ; 52.1c, 5a, 9d, 13b, 16b, 17c ; 56.1b, c, 6c, 8d ; 57.1a, 2c, d, 6a, b, c, 7a, c, 8b, 12c, d ; 58.20b, 24a ; 59.8b ; 60.1b, 2a, 4c, 12c ; 62.25c ; 63.1c, 2a, 6d, 16b, 19b, 20a, 22b, 24a, 26c ; 68.7a, 10b, 19c.

The other two types are based on substitution of two short syllables for a long, either in one of the syllables in the middle of the line following the cesura after the fourth syllable (Type II, subdivided into three classes), or in the first syllable of the line (Type III). All the examples of these types are quoted and analysed *l.c.* 168 ff. Here I shall merely list the cases which occur : Type II (a), 56.7d ; (b), 52.16a, 63.3b, 17a ; (c), 57, 12b. Type III, 63.3c.

No. 3 : VOCABULARY (SABHĀPARVAN)

The following list is intended to contain all words, including proper names, which (as far as appears) are peculiar to this book, or nearly so.

Most of them seem not to be recorded, in the senses found here, outside of this book. Some few appear elsewhere, but rarely ; these are included because of their rarity or problematic character. Some are recorded in the lexicon of BÖHTLINGK and ROTH (which is abbreviated PW), but only from this book. Some others are there represented by different words, because the reading of the vulgate (Calcutta and Bombay editions) is different from ours. In these latter cases, as a rule, I quote the vulgate reading after that of our text. The majority of the words here listed are proper names, personal, mythical, or geographical. For many of these the Mss. offer variants, sometimes in large number ; but in this list only the form adopted in the text is given, even when it is much less than certain.

aṅgaçāda, n. of a yakṣa, 10.16c.

anantadanta, n. of a ṛṣi, 7.12c.

aniketa, n. of a yakṣa, 10.17c.

anivāsa, pl. n. or epithet of a people, 47.15c.

anukarṣa, some part of a wagon, 49.6b (see comm's glosses).

-anukarṣin, "bringing along with", 9.7b (see note in Addenda).

anupātin, "having consequences, leading to" (+ dat.), 56.1a.

anupraṣṭar, "one who investigates searchingly", 5.29c.

anupriya, "friendly disposed", 5.63b ; 57.16a, 17b.

anubala, "of reduced, meagre strength", 16.6a.

anuvārṇa, "(men) of subordinate castes" (?) 58.5c.

anusainika, "army-follower", 23.14d.

**antākhi*, "Antioch" (?) 28.49a (see note in Addenda).

apācīna, "contrary, ill-omened", 72.8d.

apsuhomya, n. of a ṛṣi, 4.10c.

abhisāri, n. of a city, 24.18a.

abhyutsamayitvā, gerund, 63.12a (see under Grammar, p.4 ; PW records only pple.

abhyutsamayat from this verb).

uripraṇud, n. of a king, 8.9a.

arivāsu, n. of a ṛṣi, 4.9c.

āsvamedhesvara, n. of a king, 26.8a.

aṣṭacandraka, "having the form of the eight-day-old moon, half-moon shaped", 66.14b (cf. *aṣṭamācandra* in SCHMIDT'S *Nachträge* to PW.)

asti, n. of a daughter of Jarāsaṃdha, 13.30a.

asmikṛta, "selfishness, selfish act", 61.10a.

ākaraṣa, n. of a king, 31.11c.

ākṣepa, "throw (of dice)", 58.30d (cf. *saṃutkṣepa*).

ānimāṇḍvya, n. of a ṛṣi, 4.10d (see Addenda).

āsrāvya, n. of a ṛṣi, 7.16d.

āstāra, "place on which the dice are thrown", 51.3d (see Addenda).

āhṛti, n. of a prince, 4.27a ; 13.21a ; 28.39a (vulg. *ākṛti* always).

indrakṛṣṭa, "plowed by Indra, growing wild", 47.9a.

indraparvata, n. of a mountain, 27.13b.

ira, n. of an apsaras, 10.11b.

īrin, n. of a princely family, 8.22b.

uttama, n. of a people, 27.3b.

uttara, n. of a people, 27.3b.

uttarajyotiṣa, n. of a place, 29.10c (vulg. *°jyotiṣa*).

udarṣa, an uncertain part of a palace, 32.12b.

unnāṭa, n. of a mountain or country, 27.5c (vulg. *bhallāṭa*).

upakṛta, n. of a tribe, 28.43b.

upadeśa, "neighbouring territory", 27.9c.

upāsaṅga, "quiver", 49.9a.

uragū, n. of a city, 24.18c.

śadgava, n. of a king, 8.23a.

ṛta, "righteous", 31.7c (in this sense, of persons, recorded only as Vedic).

ekapāda, pl. n. of a people, 28.47a ; 47.16a.

ekapādaka = preceding, 47.18d.

ekāśanājyoha, pl. n. of (one or two) people(s), 48.3a.

- aīda*, "made of (the skin of) the animal called *eda* (usually *edaḥa*)", 47.3a.
- oṣṭrakarṇika*, pl. n. of a people, 28.48d. (vulg. *uṣṭra*^o).
- audumbara*, pl. n. of a people, 48.12c.
- auṣṇīṣa*, pl. n. (or epithet) ? of a people, 47.15c.
- kaṃala*, n. of a king, 4.19e.
- kāmpana*, n. of a king, 4.19f.
- karavat*, "by way of tribute", 25.15d.
- karahātaka*, n. of a king (or place), 28.47d.
- karkara*, n. of a ṛṣi, 4.15e.
- kalabha*, n. or epithet of a king, 13.12b (vulg. *karabha*).
- kalāpa*, n. of a ṛṣi, 4.15f.
- kaśeraka*, n. of a yakṣa, 10.15a.
- kaḥva*, n. of a Vṛṣṇi, 13.58a (vulg. *kaṅka*; see Addenda).
- kākṣīva*, =^o *vant*, n. of a ṛṣi, 19.5d.
- kāca*, n. of a king, 27.22d.
- kāmyaka*, n. of a lake, 48.19d.
- kāyavya*, n. of a people, 48.12a.
- kāra*, "tribute", —*kara*, (recorded only lexically) in *kṛta-kāra*, 48.18c.
- kāraṇika*, title of an official who trained princes and warriors in science, 5.23a.
- kārasakara*, pl. n. of a people, 46.21c.
- kitava*, pl. n. of a people, 47.10b.
- kukṣura*, pl. n. of a people, 48.15a.
- kukṣimant*, n. of a mountain, 27.5d. (vulg. *sukṣimant*).
- kaṭṭikṛta*, a designation of a textile fabric, "made by splinting" (?), 47.23a (vulg. *kūṭi*^o).
- kuṇinda*, n. of a people, 4.22b; 23.13a, 14b; 48.3c (vulg. *kulinda*).
- kuṇḍaladhara*, n. of a nāga, 9.9c.
- kuṇḍamāna*, pl. n. of a people, 48.13a.
- kustumbura*, n. of a yakṣa, 10.15c.
- kṛtakṣaṇa*, n. of a ksatriya, 4.24b.
- kṛtavega*, n. of a king, 8.9b.
- kṛtāsrama*, n. of a ṛṣi, 4.12b.
- kṛtin*, n. of a king, 48.24a.
- kṛṣivāla*, n. of a ṛṣi, 7.11d.
- kṛṣṇa*, n. of a nāga, 9.8c.
- kevala*, pl. n. of a people, 28.47b.
- kaitavya*, "stake" (in gambling), 58.22d.
- kairātaka*, fem. *ikā*, "of the Kirātas", 48.10a.
- koṇanada*, pl. n. of a people, 24.17b.
- kopavegaśravas*, n. of a ṛṣi, 4.14b.
- kollagiri*, n. of a place, 28.45c.
- kośa*, "venom-bag" (of a snake), 59.3b.
- kaṅkura*, pl. n. of a people, 48.14a; see also *caitṛaki-kaṅkura*.
- kaṇṣika*, n. of a serpent-demon (cf. *kośa*), 19 + 10c; also another name for Hamsa, Jarāsaṃdha's general, 20.30c.
- kharva*, a very large number, 58.3b; *tri-kharva*, consisting of three *kharvas*", 47.5e; cf. *trakharva*.
- gajakarna*, n. of a yakṣa, 10.15d.
- gaṇḍakandū*, n. of a yakṣa, 10.15a.
- gaṇḍakṛtyā*, n. of a river, = *gaṇḍakṛ*, 18.27a.
- gaviṣṭha*, n. of a ṛṣi, 7.11a.
- gopālakaṇḍha*, n. of a country, 27.3a (vulg. *kaḥṣa*).
- goratha*, n. of a mountain, 18.30c.
- govāsana*, pl. n. of a people, 47.5a.
- gaurasiras*, n. of a ṛṣi, 7.10b.
- gaurāśva*, n. of a king, 8.17b.
- orāmaṇḍya*, pl. n. of a people, 29.8b (vulg. *āṇya*).
- ghaṭajānuka*, n. of a ṛṣi, 4.11b.
- ghaṭodara*, n. of a demon, 9.13c.
- caḥradeva*, n. of a Vṛṣṇi, 13.56b.
- caturāśva*, n. of a king, 8.10c.
- caturyu*, a name of Jarāsaṃdha, 13.8a, 20a.
- cārunetra*, n. of an apsaras, 10.10c.
- citra*, n. of a nāga, 9.8d.
- citrascena*, another name of Dibhaka (q. v.), 20.30c.
- citrascenā*, n. of an apsaras, 10.10b.
- ciravāsas*, n. of a yakṣa, 10.17d.
- caitṛaki-kaṅkura*, pl. n. of (one or) two people (s), 46.21b, (cf. *kaṅkura*).
- jaṅghabandhu*, n. of a ṛṣi, 4.14a.
- jaṭāsura*, n. of a king, 4.21a.
- jambhaka*, n. of a king, 28.7b.
- jaradgava*, n. of a country, 27.4b (vulg. *jalodbhava*).
- jātūkarna*, n. of a ṛṣi, 4.12c.
- dibhaka*, n. of one of Jarāsaṃdha's generals, 13.11d, 36c, 40c, 41d, 42a; 17.25a; 18.1a; 20.13b (vulg. *dimbhaka*).
- talavana* (?), pl. n. of a people, 28.48c.
- tāmra*, n. of a dvīpa, 28.46a.

śārṅgaya, pl. n. of a people, 48.14a.
tittiri-kalmāṣa, "speckled like partridges"
 epithet of horses, 25.6a, 19a; 47.4a.
timirṅgila, n. of a king, 28.46c.
turaya, n. of a king, 8.8c.
turā, "quickly", 64.10a (see Addenda).
tṛṇaka, n. of a king; 8.16a.
trikharva, see *kharva*.
traikharva==preceding, 45.24c.
traivani, n. of a ṛṣi, 4.11a.
tryakṣa, n. (or epithet) of a people, 47.15a.
tvīṣiratha, n. of a king, 8.15b.
daśāvara, n. of a demon, 9.14d.
dāmoṣṭhīṣa, n. of a ṛṣi, 4.11a.
dāsamiya, n. of a people, 47.5b.
divahprastha, n. of a city, 24.12a (vulg. *deva-prastha*).
dirghaprajña, n. of a king, 27.2h (vulg. *dirgha-yajña*).
dirghaveṇu, pl. n. of a people, 48.3b.
durmukha, n. of a demon, 9.13a.
durvibhūga, pl. n. of a people, 48.12c.
deva, "play, gambling", in akṣa-deva, 55.5a.
devarāja, n. of a king, 8.23b.
devahavyu, n. of a ṛṣi, 7.16c.
devita, "play" (of dice), 56.10a.
drumaputra, n. of a king, 25.1d.
dvyaṁṣa, n. (or epithet) of a people, 47.15a.
dhāman, n. of a king, 8.23d.
dhīdhana, "rich in wisdom", 18.17d.
naya, n. of a king, 8.19d.
nālā, "stalk" (= *nāla*), in *māṣa*,
 "bean-stalk", 19.15c (see Addenda).
nighna, n. of a people, 46.21b (vulg. *nīpa*).
nidānta, n. of a Vṛṣṇi, 13.58a.
nir-ah: *nirāha*, "declares", 57.2d.
ni-śanis: *niśamsitum*, "to declare" 44.22d.
niṣkūṭa, "border, environs", 24.27b (see
 Addenda ad loc.); 47.9c.
nirṣṭa-kāma, "having abandoned (surrendered)
 one's free choice", 60.42b, 43d.
pañcakarpaṭa, pl. n. of a people, 29.6d.
pañcāhastā, n. of a king, 8.12b.
pañtāja, ? epithet of a textile fabric, 47.22d.
parā-svas: "to rely upon", with loc., 57.18a.
parisindhu, adv., "about the Indus", 47.9d
 (vulg. *pāresindhu*).
parṇāda, n. of a ṛṣi, 4.11b.
pavitrapāṇi, n. of a ṛṣi, 4.13c.

paśūpa, pl. n. of a people, 48.3c.
paśubhūmi, n. of a country, 27.8d.
pāṇḍu, used of the sons of Pāṇḍu, 55.14a;
 62.10a.
pāravargya, "adherent of hostile party",
 57.12a.
pārijāta, n. of a ṛṣi, 5.3a (cf. next).
pārijātaṭaka, n. of a ṛṣi, 4.12d (cf. preceding).
piṅgalaka, n. of a yakṣa, 10.17a.
picchāṇḍa, n. of a king (or place?), 28.47d
 (vulg. *pāṣaṇḍa*).
piṭhara, n. of a demon, 9.13d.
pipilaka, a kind of gold said to be collected by
 ants, 48.4a.
purāṇacaura, "former thief", man with
 criminal record, 5.72c.
puṣpānana, n. of a yakṣa, 10.17a.
pūru, n. of Arjuna's charioteer, 30.30b.
pūrvadeśa, n. of a country, 47.31b.
prithagaśva, n. of a king, 8.20d.
prithvaṁṣa, n. of a king, 8.9b.
prithvaśva, n. of a king, 8.18b.
prṣṭha, n. of a king, 8.19d.
paiṅga, n. of a ṛṣi, 4.15c.
potana, n. of a city, 28.38d.
pauraka, pl. n. of a people, 48.13b.
pratika (n), "apiece", 5.68c.
pratibādhana, fem. ^ṛ, "repelling", 5.53d.
pradara, pl. n. of a people, 48.3b.
pradyota, n. of a yakṣa, 10.17b.
pravāṭaka, n. of a yakṣa, 10.17b.
prahlāda, n. of a nāga, 9.10a.
prācyasuhma, "eastern Suhmas", n. of a people
 27.24a (vulg. *prasuhma*).
prājñavādika, "speaking words that claim to be
 wise", 61.38b (adjective to *prājñavāda*,
 Bhagavadgītā 2.11b, the meaning of which is
 established by this.)
prātīptiya, patronymic, regularly for vulg.
prātipceya, 56.2a, 7a; 57.17a.
prāpti, n. of a daughter of Jarāśandha, 13.30a.
prīyāyate, denom., "is glad", 56.5b.
phalabhakṣa, n. of a yakṣa, 10.16b.
phalodaka, n. of a yakṣa, 10.16b.
phalguna;= *phālguna* (Arjuna), 58.20d.
babhrumālin, n. of a ṛṣi, 4.14d.
balavāka, n. of a ṛṣi, 4.12 a.
bali, n. of a ṛṣi, 4.9d.
bāhuka, pl. n. of a people, 47.15d.

- budbudā*, n. of an apsaras, 10.11d.
bhadrakāra, pl. n. of a people, 13.25a.
bhāṅgāsvari, n. or patronymic of a king, 8.15a (vulg. °suri).
bhīmajānu, n. of a king, 8.19c.
bhūmi, "basic capital" (opposed to *phala*, "interest, profit"), 47.2c.
bhūliṅga, a certain bird, 38.17d; 41.18d, 19a.
bhogavanti, n. of a king (?), 27.11b.
maṇimant, n. of a nāga, 9.9c; 19.10c.
māṇḍūkākṣa, epithet of horses, probably "of the colour of frogs' eyes", 25.6b.
mattamayūra, pl. n. of a people, 29.5b.
madarvika, n. of a mountain, 27.8b (vulg. *madadhāra*).
madrakānta, n. of a king, 4.21a.
madhyamikāya, pl. n. of a people, 29.7a.
mahāgama, "of great gait" (of horses), 47.26c.
mahāsiras, n. of a ṛṣi, 4.8b; of a demon, 9.14b.
mahāsva, n. of a king, 8.18a.
maheccha, n. of a place, 29.6a (vulg. *mahettha*).
mācella, n. of a king, 31.13d.
mādhavīrtha, n. of a locality, 13.52b.
mālā, n. of river, 18.28d.
māśāda, n. or epithet of a fabulous bull, killed by Brhadratha, 19.15a.
māsakālīka, "pertaining to one month's time", 54.20d.
mukhya, "first (caste)" — *brāhmaṇa*, in *mukhyavāsas*, "wearing brahmans' garments", 18.23b.
muñjaketu, n. of a kṣatriya, 4.18d.
murācīpattana, n. of a town, 28.45d. (vulg. *surabhipaṭṭana*).
mīṣikāda, n. of a nāga, 9.10a.
meghavāsas, n. of demon, 9.14d.
meghavāhana, n. of a king, 13.12b.
modāgiri, n. of a king (not a mountain!), 27.19a.
modāpura, n. of a city, 24.10a.
maunajāyana, apparently patronymic of *vāyubhakṣa* (q. v.), 4.11c.
mauleya, n. of a people, 48.14c.
rāmaka, n. of a mountain, 28.46b.
ruśadaśva, n. of a king, 8.13a.
ruśadgu, n. of a king, 8.12c.
rocamaṇa, n. of a king, 24.18d; of another king, 26.8b.
romā, "Roma" 28.49a.
rohitaka, n. of a place (? mountain), 29.4d.
latā, n. of an apsaras, 10.11d.
lalāṭākṣa, pl. n. (or epithet) of a people, 47.15a.
loha, pl. n. of a people, 24.24a.
lohajangha, pl. n. of a people, 46.21c.
lohita, n. of a nāga, 9.8c; n. of a country (or king), 24.16c.
lohitya, n. of a river (the Brahmaputra), 48.8d. (vulg. *lauhitya*).
varāha, n. of a ṛṣi, 4.15c.
varāhakarṇa, n. of a yakṣa, 10.16a.
vargapāla, "herd-keeper", applied to Kṛṣṇa, 41.17b.
vargā, n. of an apsaras, 10.11c.
varmaṇa, pl. n. of a people, 27.12a.
vastrapa, pl. n. of a people, 48.14b.
vātāskandha, n. of a ṛṣi, 7.12a.
vāyubhakṣa, n. of a ṛṣi, 4.11c.
vāriṣeṇa, n. of a king, 8.18c; n. of a sea (lake), 48.8c.
vārśadaśva, "made of (the skin of) cats", 47.3a.
vūlin, n. of a demon, 9.14c.
viṭaṭuta, n. of an asura, 9.15a.
vi-taṇḍ: *viṭaṇḍāna*, ppl., "disputing", 33.4d.
virūpa, n. of a demon, 9.14b.
vivardhana, n. of a kṣatriya, 4.18d.
viśālaṇa, n. of a yakṣa, 10.15d.
viśvarūpa, n. of a demon, 9.14a.
vrkṣavāsin, n. of a yakṣa, 10.17c.
vrndāṭaka, n. of a city, 29.10d (vulg. *divyaṭaka*).
veṇujangha, n. of a ṛṣi, 4.15e.
vaiyamaṇa, pl. n. of a people, 48.12b.
vairāma, pl. n. of a people, 47.10a.
vairin: pl. n. of a princely family, 8.22b.
śakravāpin, n. of a snake, 19.9a.
śaṅkha, n. of a demon, 9.13a.
śarmaka, pl. n. of a people, 27.12a.
śānavatya, pl. n. of a people, 48.15d (vulg. *śāna*).
śikhāvant, n. of a ṛṣi, 2.12c.
śikhāvarta, n. of a yakṣa, 10.16a.
śinivāka, n. of a ṛṣi, 4.12a.
śukanāsika, "coloured (?) like a parrot's nose" ("brown-faced", Devabodha), 47.4b.
śucikṛt, "acting purely, rightly", 5.70a.
śukara, epithet of elephants, 48.24b; according to Nilakaṇṭha, local name. Cf. KIRFEL *Kosmographie*, 329.

- śūra, pl. n. of a people (? or adjective), 48.12.
- śairīśaka, n. of a place, 29.6a.
- śoṇitoda, n. of a yakṣa, 10.17b.
- śauṇḍika, pl. n. of a people, 48.15a.
- śrūtāyudha, n. of a kṣatriya, 4.23a.
- śvetabhadra, n. of a guhyaka, 10.4d.
- saṃsparsaka, nt. substantive, in gātra-sam°, "thing that touches (the body)", 5.56b.
- saṃhrādāna, "resounding", 54.5a.
- saṃgranthana, "the fashioning, origination" (kalahasya), 51.11b.
- saṃgrāmajit, n. of a kṣatriya, 4.19a.
- saṃjayanti, n. of a city, 28.47c.
- sadaśvormi, n. of a king, 8.10c.
- saṃnyastapāda, pl. n. of a people; 27.12a.
- samakṣa, pl. n. of a people, 27.14b.
- samutkṣepa, "throw" (of dice), 67.20c (cf. ākṣepa).
- samudrasāra, "valuables from the sea", 48.30a.
- samprauḍha, "great, proud", --prauḍha, 5.63a.
- sarpamālin, n. of a ṛṣi, 4.8b.
- sāṃkāśya, n. of a king, 8.10b.
- sāndroṣṭha, n. of a yakṣa, 10.16a.
- sārika, n. or patronymic of two ṛṣis (dual sārikau), 2.11d.
- sikṭa, "bespangled"? (of a sārikha), 49.15a.
- sukūṭṭa, n. of a people, 13.25c.
- sutyapāla, n. of a ṛṣi, 4.12b.
- sudhanvan, apparently n. of Arjuna, 56.6d.
- sudharman, n. of a kṣatriya, 4.24c.
- subala, n. of a ṛṣi, 4.12d.
- subandhu, n. of a king of Kāśi, 27.6b. (vulg. subāhu).
- sumanḍala, n. of a king, 23.14c.
- sumati, n. of a demon, 9.13b.
- sumanas, n. of a demon, 9.13b.
- sumitra, n. of a ṛṣi, 4.8c.
- surūpa, n. of a demon, 9.14a.
- susāman, n. of a priest, 30.34d.
- susimha, n. of a king, 8.9a.
- susthara, pl. n. of a people, 13.25c.
- suhanu, n. of a demon, 9.13a.
- sūryodayagiri, n. of a mountain, 48.8b.
- sainya, n. of one of Kṛṣṇa's horses, 2.13d. (vulg. saibya).
- somayuj, "employing soma", 7.9a.
- saurabheyī, n. of an apsaras, 10.11c.
- stuti-śastra, dvandva, = stuta°, 11.26a (not to be emended with PW).
- sphāti, "bursting, blooming", 51.17b (see Addenda).
- svana, n. of a demon, 9.13b.
- svastika, n. of a snake, 19.9c.
- hamsakāyana, pl. n. of a people, 48.13b.
- hamsāṃsuvarṇa, "hamsa-ray-coloured, white", 31.22c.
- haribabhrū, n. of a ṛṣi, 4.14c.
- hāṭaka, n. of a country, 25.3a; pl. n. of a people, 25.5b.
- hiraṇyada, n. of a ṛṣi, 7.16d.
- hr̥dya, n. of a ṛṣi, 7.11c.
- hemanetra, n. of a yakṣa, 10.16d.
- hr̥niṣedha, "restricted by shame", 49.2a (vulg. ōniṣeva; see Addenda).

UNPĀṆINIAN FORMS AND USAGES IN THE CRITICAL EDITION OF THE MAHĀBHĀRATA¹

4 SANDHI²

By

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As a general rule Sanskrit allows no hiatus in a sentence. If a word ends in a vowel and the next word begins with a vowel, the two vowels coalesce according to certain rules laid down by Pāṇini's great grammar. But *Pragṛhyas* are exceptions : When the dual of a noun or a verb ends in *ī*, *-ū*, or *-e* these vowels do not combine with another following them.³ The final *-o* of a particle is also considered as a *pragṛhya*.⁴ In the Critical Edition of the Mbh. scarcely any unpāṇinian consonant sandhi is found ; the present paper, therefore, deals mainly with vowel sandhi and visarga sandhi. The general rules of vowel sandhi are as follows. When any vowel, short or long, except the last four, is followed by the same vowel, short or long' (*śajātīyasvara*), the substitute for both is the same vowel lengthened.⁵ The guṇa is the single substitute of the final *-a* or *-ā* of a preceding word and the simple vowel (*-i*, *-u*, *-ṛ*, *-ḷ* short or long) of the succeeding.⁶ Similarly if *-e*, *-ai*, *-o* or *-au* follow *-a* or *-ā*, vr̥ddhi is the single substitute for both.⁷ Next when *-i*, *-u*, *-ṛ* and *-ḷ* short or long, are followed by a dissimilar vowel (*viśātīyasvara*) the corresponding semi-vowels *-y*, *-v*, *-r* and *-l* are respectively substituted for them.⁸ Lastly *-e*, *-o*, *-ai* and *-au* when followed by a vowel become *-ay*, *-av*, *-āy* and *-āv*.⁹

¹ A pathetic interest attaches to the publication of this work. It is certainly an irony of fate that I have to publish one of the articles of the series, suggested by late Dr. V. S. Sukthankar, in a Memorial Volume in his honour, on the first anniversary of his death.

² For the previous study of the series see *Annale BORI* 24.83-97 ; *BDCRI* 4.227-45 ; *NIA* 6.130-39. I gratefully record my obligations to Dr. S. M. Katie for helping me substantially at every stage with his guidance and books.

³ ईदूदेद्विद्वचनम् प्रग्रह्यम् ॥ ईदूदेदन्तं विद्वचनं प्रग्रह्यमेतं म्यान् । (Siddhānta Kaumudī) on Pāṇini 1.1.11.

⁴ ओत् ॥ ओदन्तो निपातः प्रग्रह्यः स्यात् । (Siddhānta Kaumudī) on Pāṇini 1.1.15.

⁵ अकः सवर्णे दीर्घः ॥ अकः सवर्णेचि परे दीर्घे एकादेशः म्यान् । (Siddhānta Kaumudī) on Pāṇini 6.1.101.

⁶ आद्गुणः ॥ अवर्णादचि परे पूर्वपर्येरेको गुणादेशः म्यान्संहितायाम् । (Siddhānta Kaumudī) on Pāṇini 6.1.87.

⁷ वृद्धिरेचि ॥ आदेचि परे वृद्धिरेकादेशः स्यात् । (Siddhānta Kaumudī) on Pāṇini 6.1.88.

⁸ इको यणचि ॥ इकः स्थाने यण् स्यादचि संहितायां विषये । (Siddhānta Kaumudī) on Pāṇini 6.1.77.

⁹ एचोऽयवायावः ॥ एचः क्रमाद्य् अव आय् आव एने म्युरचि । (Siddhānta Kaumudī) on Pāṇini 6.1.78.

Of the visarga sandhi, we are concerned only with the two. When a visarga is preceded by *-a* and followed by *-a* or a soft consonant, it is changed to *-u*, which with the preceding *-a* becomes *-o*; secondly a visarga preceded by *-ā* and followed by a vowel or a soft consonant, is dropped. It is also dropped when preceded by *-a* and followed by any vowel except *-a*; the two vowels thus brought together by the dropping of visarga, do not coalesce.¹⁰

A critical examination of the material presented below clearly shows that sandhi was originally more flexible and that there was an overgrowing antipathy to forms of sandhi, not sanctioned or countenanced by Pāṇini's grammar; hiatus also came to be disapproved and was removed by certain expedients.¹¹ The different portions of the Critical Text as well as the Critical Apparatus present the same phenomenon. An irregularity from Pāṇini's grammar is a common feature of the elastic epic diction, but a majority of them is often utilized *metri causa*. It naturally leads to regularization. That is why the manuscripts, recorded in brackets, indicating the source of the reading concerned, betray surreptitious efforts of the scribes and redactors to eliminate hiatus and correct the wrong sandhi by the insertions of *hi*, *ca*, *tu*, *vā*, *api*, *atha*, *su* etc. between the vowels, or by recasting the whole pāda, or by transposition or modification of words from the point of (a) pada (e.g., *jāyālīti* for *jāyateti*; *vidyatīti* for *vidyateti*); (b) tense (e.g., *babhūva* for *abhavat*; *vahanti* for *uvāha*); (c) upasarga (e.g. *sāṃgamyā* for *abhogamyā*; *vyāśasada* for *āsasāda*); (d) synonyms (e.g. *haya* or *vāji* for *āsva*; *śakṛāṇī* for *indrāṇī*; *pūjayitvā* for *arcayitvā*). *Out of these devices towards regularization, the particles which are sandwiched between the vowels, show great variation from Ms. to Ms. But often enough these small particles are very instructive in determining the complex relationship of Mss.¹²

1. *Pragṛhya*. in

A. *Nouns*.

1.14.5^d *śamupete* 'dbhute' *naghe* [Ko *śamūpanne cādbhutena vai*; TG₂₋₃ *mumudāte tadā-nagha* (T₁ *tapodhanam*; T₂ *tapodhane*).]

1.19.16^d *te* 'gādham' (K₀₋₂₋₃ *tam agādham*; K_{2m-4} *D₂ te bhimaṁ*; T₂ *te gādham*.)

¹⁰ Cf. WHITNEY, *Sanskrit grammar*, 59-60.

¹¹ *Prolegomena to the Ādi XIII.*

¹² Cf. V. S. SUKTHANKAR: *Epic Studies VII. ABORI* 19.212.

B. *Verbs.*

- 1.57.88^f jajñāte 'straviśāradau ;
 1.57.94^d jajñāte 'stravidāv ubhau
 1.204.3^d vijahrāte'marāv iva [TG (except G₁) °te yathāmarau.]
 1.204.5^d (K₀₋₄ N₁V₁D₅ °te yathāmarau) ; 1.211.9^d ;
 1.218.32^b jagṛhāte'svināv api (S₁K₁Ñ₁D₂ °te tṛthāśvinau) ;
 5.45.3^b śiśriyāte'ntarikṣe
 5.48.21^b aśmuvāte'ksayān (T_{2m} anuyātau aksayān) ;

C. *Particles.*

- 1.1038*.6 aho'yam ; 3.40.29^a ;

II. *Hiatus between two pādas, between*

A. (a) -a and -a

- 1.2.115^{cd} dharmas ca ajijñāsañ (K₁₋₂ dharmas cāpy ajī°, G₁ 2-4 M dharmasya jijñāsārtham śibiñ) ; 1.128*.16 ;
 1.290*.2 ca asurāñām ;
 1.54.13^{ub} ca arghyam gām ca [K₀₋₂ M rājyam gām ca ; K₃B₄ gām arghyam (B₄ °rgham) ca] ;
 1.60.17^{ub} somaś ca ahaś ca
 1.67.17^{cd} duḥsanta astu (K₁ hy astu me ; B₄₅ tadā me, T₁G₁M tvayāstu manasamgamah) ;
 1.86.12^{ab} aniketas ca agotracaraṇo ;
 1.862*.7 grhasthasya amitam (All except G₁₋₃ D₄ °syāparimitam).
 1.87.14^{ab} narendra apy ekaikaḥ (T₁ hy apy ekaśaḥ ; G₁ hy ekaikaśaḥ).
 1.980*.1 ca asti ;
 1.96.42^{ab} kālena atyakrāman (Ś₁KD₅ tv abhyākṛā° ; Ñ₃ tv atyakṛā° ; BD₄ sotyakṛā° ; D₁ tyaktakāma ; D₂ sobhyakṛā°) ;
 1.1081* putra asty atra ;
 1.109.21^{cd} ca adharmiṣṭham [S₁KND_nD₁ ca (K₃ vā) py adharmiṣṭham ca ; G₁ cādharma niṣṭham ca.]
 1.1366* caiva anyam ; 1.1388*.2 eva anujñāto 'si ;
 1.1415*.1 vegena aśvatthāmā ; 1.1600*.2 ca atra.
 1.169.5^{cd} kaunteya adṛśyantyāḥ (S₁ tv adṛ° ; K₁ tv adṛśyantyā ; D₅ nādr°) ;
 1.1841*.2 agastycena agādho ;
 1.179.19^{cd} ca astuvams tatra (K₂ stuvantas) ;
 1.1987*.3 mahāprājña adya ;
 1.218.11^{cd} ca apratiṣṭho (K₄ÑV₁ BDaD_n D₁₋₄ cāpy apratiṣṭho ; D₂₋₅ ca na prati° ; T₁ ca hy apra°) ;
 1.2159*.3 pārtha astrāni ;
 3.13.119^{ab} vyapāśritya ajeyāḥ (Ś₁K₃D₁₋₂ hy ajeyāḥ ; Dc vijeyāḥ) ;
 3.27.23^d ca agniveśyo (Ś₁K₃B₁ Dc D₂ insert api before agni°) ;
 3.36.1^{ab} kālena antakena [Ś₁K₁₋₂ BD (D₁₋₃ missing) hy antakena.] ;

- 3.184*.2 samāgamyā ajitena; 3.333* kalisāmsargadoṣeṇa apavitro;
 3.80.77^{ef} vira analo ($\dot{S}_1 K_{1-4}$ $D_e D_n D_1$ jvalano; D_2 jvalane);
 3.80.121^{ab} mahārāja anu sañvatsaram ($\dot{S}_1 K_1 G_2$ *to anu*; $T_1 G_1$ śata-; $T_2 G_3$ satam);
 3.81.15^{ef} naravyāghra agniśtomaphalaṁ;
 3.81.67^{cd} kuruvareśeṣṭha anājanma (D_3 mama janma);
 3.82.77^{ab} mahārāja adyāpi;
 3.82.79^{cd} tatra abhigamyā (D_n D_{1-2} namaskṛtya; D_e saṅgamyā);
 3.82.104^{cd} rājendra asuraṇām ($K_2 D_n$ D_1 *hy asureṇa*; $T_1 G_1$ rājanyo vai; T_2 G_{2-4} M_1 rajanyāṁ vai);
 3.430* tatra agniśtomaphalaṁ ($K_2 D_2$ vahnir-);
 3.87.0^{cd} vira asito [*N to asito* (K_3 praśito; $D_e D_{4-6}$ tuśito)];
 3.99.5^{ab} ca antarīkṣān [*N (except K_{1-4}) M ins. api between the pādas*];
 3.106.1^{ef} samadbhānta asvagrāhābhūksīṇaḥ [\dot{S}_1 K_{1-2-4} *hy āśva°*; D_{3-5} teśva; \dot{S} (except M_1) vājī°];
 3.106.6^{ab} samāñjasaḥ asamañjasaḥ ($\dot{S}_1 K_{1-2}$ *to asamañjasaḥ*; $K_4 D_{3-5}$ sosamañjasaḥ° D_e samañjasaḥ sutam);
 3.106.36^{cd} samādhāya aśmumūn ($\dot{S}_1 K_{1-2-4}$ *to aśmumūn*; D_3 *hy aśmū°*);
 3.148.37^{ab} nama acirāt ($\dot{S}_1 K_{1-3}$ D_e D_{2-5} G_1 nacirāt);
 3.779* caiva api; 3.851* ca upastrotya aśmavarṣaṁ;
 3.867* caiva adbhutaṁ;
 3.178.4^{ab} ca ahimsā [*N (except $D_n D_{3-6}$) ° py ahimsā*];
 3.181.34^{ab} amutra amutra;
 3.183.24^{ab} ca abhivā mudito ($G_1 M_1$ subhikṣānucito; M_2 prabhavābhycuto); 3.187.27^{ab} ca avadhyāḥ;
 3.199.13^{ab} vinīcitya atrāpi [*S (except G_3 M_1) tatrāpi*];
 3.212.13^{ab} ca asthibhvo;
 3.243.4^{cd} tatra atī sarvān ayāṁ kratuḥ (M *hy atī*; \dot{S}_1 kratūn sarvān ahaṁ *to atī*; K_{1-2} kratuḥ sarvāns tv ayāṁ *hy atī*; K_{3-4} D_{1-3-5} T_2 kratūn sarvān ayāṁ *hy atī*; G_1 kratūn sarvān avāpsyasi);
 3.283.16^{ab} tena anunito [*K (K_3 missing) D_3 to anunito*];
 3.1358*.8 tatra agnihotrapurapasyā; 4.76* tāta asv sv°;
 4.3.8^{cd} karma avabuddham (K avabuddham; B_1 D_6 *hy anu°*; B_{2-3m} *hy anubaddham*; B_3 jñānabaddham; B_4 *hy annabandham*; D_7 svarubandho; D_8 *hy ava°*);
 4.3.10^{cd} upāghrāya api;
 4.107* kamaḥ ca arthaś ca (D_6 svārthas);
 4.9.13^{cd} upāghrāya api (D_{8-10} $T_1 G_3$ *hy api*);
 4.333*.9 ca acchidradasana; 4.353*.1 ca adhomukhamukhī;
 4.439* samupasaṅgava abhivabhiṣata durmatib (K_2 D_4 kicakah kāmamohitaḥ); 4.473*.1 bhīmasenena adasyā;
 4.24.17^{cd} manuṣyendra ata ūrdhvaṁ (TG_2 sādhi bhūvo yad icchasi);
 4.579*.2 virātasya anvasudhvata; 4.623*.10 tena arjuneṇa;
 4.863*.1 ca avatthāmā;
 4.52.17^{ab} ādāya atha śaktim [B_{1-3-5} $D_{2-5-7-8-10-12}$ *ca rathasaktim*; B_4 D_n $D_{1-3-4-6-9}$ rathēcchaktim (D_4 °chinnam)];
 4.940.* ca arthavidyā; 4.1086*.2 tāta ajānan;
 4.1134*.5 yasva akāmasya; 5.38*.3 govinda ahaṁ;

- 5.58* subhadrā ca abhimanyuś ca ;
 5.59*.3 satyaṁ ca ahimsā ca (D₁₀ kṣamāhimsā ; TG_{1.4.5} M_{1.2} dayā cāpi) ;
 5.29.8^{cd} karmaṇaiva atandrito (K₂D₂ hy atandrito ; K₄ svatan^o ; T₁G_{1.5} tv atan^o) ;
 5.30.35^b saṁjaya anāmayaṁ (K₁₋₃ sanmānayan ; T₂ hy anāmayaṁ) ;
 5.30.42^{cd} sarvathaiva asmadvākyāt (D₁ tv asmadvā^o ; T₁G₁ hy asmad^o) ;
 5.31.15^{ab} saumya ajinaiḥ ; 5.32.9^{ab} saṁjaya ajātaśatruṁ ;
 5.34.49^{cd} rājendra api (D₁ hy api) ;
 5.42.30^{cd} mānasya asau (K₅D₃ TG hy asau ; D₁₀ apy asau) ;
 5.43.12^{ab} tapaś ca amātsaryam (D₅ nirmātsaryam) ;
 5.43.24^{ab} vedāś ca anṛcaś ca [K₁B (except B₃) Dn D₁₋₆ api anṛcaḥ ; G₂ hy anyataḥ ; G₃ hy anṛcaḥ] ;
 5.43.34^{cd} brahmāsya antaśātmani vai śritam [K₁ paramātmaviniḥśrutam ; Ds D₈₋₁₀ T₂ G_{2.3} second time) Cś bahva (D₉ tama ; T₂ taddhya) nantaram āpnuyāt ; G₁ (second time) bahvantaram avāpnuyāt) ;
 5.44.18^{ab} iva atho ;
 5.44.19^{ab} iva atho ;
 5.47.44^{ab} yādavasya astre yogo (D_{1.2} śastre yogaḥ) ;
 5.50.31^{cd} prajalītasyeva api mucyeta (K₅ na vimucyeta, D₂ nāvam^o) ;
 5.88.101^{ab} dharmasya anikṛtyā (K_{1.2} sunikṛtyā) ;
 5.139.12^{cd} govinda anṛtaṁ vaktum utashe [N (Dn₂ missing) mithyākartum tadu (Dn₁ D₉ tamu- ; D_{3.4} samu) tsahe] ;
 5.139.39^{cd} kṛṣṇa asmin [N (K₅ om., Dn₂ missing) tasmin] ;
 5.560*.1 kaunteya akatthan (K₄Ds D_{3.4.7.10} sa katthan) ;
 (b) -a and -ā
 1.57.13^{ab} ca ākāśe (T₂ hy ākāśe, G₆ vimānam) ;
 1.642*.2 ca āvartā ; 1.669*.3 ca āvartā ;
 1.805*.6 ca ātmadānam ; 1.1092* tatra āśramasthāś ca ;
 1.1137* tatra ānāya ;
 1.112.14^{cd} ādāya ājahāra (Ñ₁ sa juhāva ; Ñ₂ Dn D₁₋₄ sa jahāra) ;
 1.114.56^{ab} ca ādityāḥ
 1.1324* asya āśramasya samīpataḥ (D₄ hy āśramasya mahīpate) ;
 1.128.1^{ab} samānīya ācāryārtham acodayat (T₁ G₁₋₄ codayaṁśa vai guruḥ) ;
 1.141.14^{ab} yac ca ātmānam (Ś₁ K_{0.1} N_{2.3} V₁ B₃ Dn D₁ T₁ apy ātmānam) ;
 1.1615*.3 dvijaśārdūla ātmā ; 1.759*.2 ca ātithyam ;
 3.46.10^{ab} ca ācāryaḥ ;
 3.73.12^{cd} samādaya avidhya (Ś₁ samṛddhegnau ; K₁ samiddhegnau ; K₂D₅ samidhyantaṁ ; K₃ samiddhe taṁ ; K₄ sopadhmītuṁ ; B_{1.2.4} Dn D_{4.6} savitus taṁ ; B₃ Dc samidhe taṁ ; D_{1.2} samṛddhyartham ; G₁ hy avidhya) ;
 3.81.21^{cd} rāmeṇa śhrīte (K₂Dn hrītaṁ tat su^o ; Dc prākṛte vai ; D₅ kṛtaṁ tat su^o) ;
 3.93.14^{cd} ayajanta ārṣeṇa ;
 3.97.2^{ab} asuraśreṣṭha ātithyam [K_{1.2.4} B D (except D_{2.3.5}) T₂ G₃ tv ātithyam) ;
 3.134.3^{ab} prabodhaya āśvīṣam ; 3.663*.3 mahārāja āśramah ;
 3.148.9^{ab} samācākṣva ācāram (Ś₁ K_{1.2} tv ācāram) ;
 3.750* cādyā ānayāmi tavāntikam (Dc pārśvayor ānayāmi te) ;
 3.155.49^{ef} caiva ācītāni (Ś₁ K_{1.2} D₁₋₃ svācītāni ; B₁ Dc śobhi^o) ;
 3.297.74^{ab} kāmāc ca ānṛśamsyam ; 4.147*.1 puruṣavyāghra āyudhāni ;
 4.53.6^{ab} satyaṁ ca ānṛśamsyam athārjavam [D₇ orig. damānṛśamsyam eva ca ; S tejo mārdavam ārjavam (M_{1.2} mārdavam hrīr acāpalam) ;

5.30.38^{cd} ca ānṛśamsyāt [K₁.3 B (B₁ missing) Dn Ds D₂₋₇.10 T₁ G₁.2 yān ānṛśamsyo (K₁ B₃ Ds D₂₋₆.10 T₁ °syād; G₂ °syān); D₉ ya ānṛśamsyād; T₂ hy ānṛśamsyān; G₅ M apy ānṛśamsyād (M₄ °syān)]; 5.38.2^{ab} abhyāgatāya āniya;

5.51.5^{ab} ca ācāryaḥ;

5.388*.6 dhaumyaś ca ānimāṇḍavyakauśikau;

5.83.1^{ab} samājñāya āyāntam (K₄ B Dn D₂₋₆.9.10 prayāntam; Ds D₁.8 prayātam; M₂.4 cāyāntam);

5.92.33^{cd} ca āsan [K (K₃ missing) B Dn Ds D₁.5-8.10 apy āsan (K₂ āsīt); D₂ hy āsan]; 5.423*.3 rājendra ādaram;

5.125.4^{ab} ca ācāryo [K₁.2.5 B (except) B₃ DnDsD₁.6-8.10 °py ācāryo; M hy ācāryau]; (c) -ā and -a.

1.151*.1 tathā asvatthāmnā;

1.33.22^{ab} vā apare [Ś₁ K₁.2 (sup. lin.) T G₂.6 M (except M₁) apy apare; K₂ (before corr.); 4 G₄.5 tv apare; G₁ pare.];

1.41.20^{cd} dr̥ṣtvā asmākam (Ś₁ K₁.N₃ Da Dn₁.n₃ D₁₋₄.6.7 T asmākam; G₃ M₁.5 cāsmākam; the rest hy asmā°);

1.59.12^{ab} kālā anāyuh [N (except K₂.4 B₅; Ś₁ missing) danāyuh];

1.602*.6 kṛtvā antardvipe; 1.804*.2 kanyā anapatyā;

1.92.32^{cd} smṛtvā abhyagacchad aninditā (Ś₁ K₀₋₂ N₂ V₁ B₁.3.6 Da Dn D₄ -thābhyā°; K₃ sābhyā°; N₁.3 -thābhyānandada°; B₅ sasmārāśu sumadhyamā; D₁ yāthābhyagamanin°; D₅ sābhyānandad°) 1.1082*.1 mātā apy atra;

1.103.5^{ab} kanyā anurūpā (Ś₁ K₁ sānu°; K₀ tv anu°; K₂₋₄ N B Da Dn D₁.4 T G₂.4.5 M₅ svanu°; D₂ G₁.3.6 M₃.6.8 hy anu°; D₅ svānu°);

1.107.19^{ab} aṣṭhīlā abhavaç chatadhā tadā [N (K₃ Om.) babbhūva śatadhā (B Da D₂.4 bahudhā); S (T₂ Om.) hy abhavaç (M₃ by transposition, śatadhā hy abhavaç)];

3.2.36^{ab} tṛṣṇā antardehagatā (Ś₁Dc D₁₋₃ hy a°);

3.2.36^{cd} sambhūtā ayonija (D₁.2 lauham raja);

3.81.87^{ab} snātvā arcayitvā [BD₄.6 S (T₁ Om.) samabhyercya; D₃ pūjayitvā];

3.81.89^{ab} snātvā amareṣu (Ś₁ hy amareṣu);

3.81.94^{cd} snātvā agniṣṭomaphalam (T₂ G₂₋₄ hy agniṣṭoma°);

3.81.114^{cd} snātvā arcayiṣyanti ye tu mām [S yo mām arcayitā dvija (T₁ °yate narah; G₂ M °yate dvija);

3.81.139^{ef} sarvapāpavisuddhātmā agniṣṭomaphalam;

3.81.154^{ab} snātvā arcayitvā;

3.82.68^{cd} snātvā arcayitvā (B₂ G₂ hy arca°);

3.82.69^{ab} gatvā arcayitvā (Ś₁ K₁ Dc₂ D₃ devam arcya, K₄ D₁.2 pūjayitvā, G₂ hy arca°);

3.82.111^{ab} gatvā arcayitvā (G₂ hy arca°; M₂ samabhyarcya);

3.83.33^{cd} snātvā āśvamedhaphalam (Ś₁ tv āśvamedha°; K₄ G₁ vājimedha°; B D₄ gosahasra°; D₃ T₂ G₂.3 hayamedha°; T₁ vinded bahu suvarṇakam);

3.146.70^{cd} svavapuṣā arcīṣmantam (Ś₁ K₂ B Dn D₄.6 T G₃.4 M svarṣīṣmantam; K₁.3.4 Dc D₁.3.5 mūrīṣmantam; G₁ rāṣīmīmantam; G₂ tv arcīṣmantam);

4.23.16^{cd} śrutvā anṛṇā (B D₁₁.12 S hy anṛṇā; D₄ janādyā, D₆.10 tv anṛṇā), 4.833* jītvā astrarājam;

5.31.3^{cd} mantrayitvā anyonyena (D₁ tv anyo°; D₉ hy anyo°);

5.93.60^{ab} manvānā artham (K₄ B Dn₁ Ds D₃.5.6.8.10 apy artham; D₂.4.9 hy artham; T G₂ svārtham; G₁.3.4 M₁ tv artham);

5.193.60^{ab} kanyā ambā;

(d) -ā and -ā.

- 1.1635*.1 *dr̥ṣṭvā āpūrṇavadanaṁ* (D₅ *hy āpūrṇa*^o; T₁ G₃ *sāmpūrṇa*^o);
 1.1915* *yodhayitvā āgantārah*; 1.2070*.2 *yuktā āśibhiḥ*;
 3.53.19^{ab} *bālā āyēntu*, 3.160.24^{cd} *vitamaskarmā ādityo*;
 3.290.7^{ab} *tadā ājuhāva* [K₄ BDc Dn D₂.4.6 *hy āju*^o; S (except G₃) *sāju*^o];
 4.36.4^{ef} *gatvā āsasāda* (D₂.3.8 *vyāsasāda*);
 5.40.9^{ab} *viṇā ādarśo*; 5.73.19^{cd} *vātavegapracalitā aṣṭhīlā*;
 5.88.90^{cd} *duhitā ājamīḍhakulam*;
 (e) *-i* and *-i*.
 1.209.11^{ab} *tīrthāni itaḥ* [K₃ *Ñ*₁.2 B (except B₅) DM *tataḥ*];
 3.229*.2 *cāpi indrasenām*; 3.190.80^{cd} *rājaputri ikṣvākurāṇyaṁ*;
 4.3.16^{cd} *yānti iti* (D₁.2 *tu iti*; D₃ *kṛta-*); 4.175*.25 *badhnihi idam*;
 4.491*.7 *sairandhri iha*; 4.852*.1 *purāṇāni itihāsaṁ*;
 5.42.29^{ef} *mānayaṣyanti iti* [K₅ Ds G₃.4 *eva*; D₈.10 *evam*];
 (f) *-i* and *-i*.
 5.189.7^{cd} *bhāvi iti*;
 5.194.10^{cd} *māyāvi ity etaddharmaniscayaḥ* (K₁.2 *evam dharme suniscitam*; K₄ *hy etaddharmanidarśanam*; K₅ *hy etaddharmaviniścayaḥ* D₄ - *tyetad dharmaṣu niścitam*);
 (g) *-u* and *-u*.
 1.45.13^{ab} *kuruṣu uttarāyām* [Ś₁ *cottarāyām*, K₃ *Ñ*₁.2 V₁ B (B₂ missing) D *sotta*^o; T *hy utta*^o]; 3.294.20^{ab} *tu upasaṁgama*;
 B (a) *-a* and *-i*.
 1.57.54^{cd} *dāśāya iyaṁ tava bhavatv iti* (V₁ B₆ Dn D₁.4 *kanyeyam te*; T₁ G₃.6 *suteyam te*);
 1.752*. *tasya iti*; 1.1424*.4 *aṅgarājasya iti vācyāḥ dvijātibhiḥ* [D₄ C₂.4.5 *°sya dvijātibhir* *iti* (C₄.5 *°bhirathe*) *ritāḥ*];
 1.137.3^{cd} *vināśāya ity evam* [Ś₁ K₂.4 *ÑV*₁ B (B₅ *marg.*) D (except D₅) T₁ M *°śāyety* *evam te* (Ś₁ *ca*; K₄ *tat*)];
 1.167.17^{cd} *rakṣasogreṇa iyeṣāttum*;
 1.2155* *mandapālasya iti*;
 3.81.167^{cd} *tena iṣṭam bhavati śāśvatam* [Ś₁ K₂.4 Dc Dn D₁.2.5 *tene* (K₂.4 Dn *tatre*) *ṣṭam śāśvatam bhavet*; S *phalam prāpnoti mānavaḥ*]; 3.154.17^{ab} *avijñāya idam*;
 3.186.95^{cd} *ca irāmām* [Ś₁ K₁.2 M₂ *kayī* (K₂ *°ya*) *mām ca*, K₃.4 D₃ *kapiśām* (K₃ *°sām*) *ca*, D₅ T₂ (by corr.) G₃ *kapilām ca*; T₁ G₁ *kala* (G₁ *°li*) *mām ca*; T₂ (before corr.) C₂.4 *kamalām ca*]; 3.973* *tāta ikṣvākur*;
 3.199.5^{cd} *lokasya ity api*; 3.199.9^{ab} *ca ity api*;
 3.241.24^{cd} *samānāyāya idam vacanam abravīt* [K₁ *tu idam*, B₁₋₃ D (except D₁₋₃.5) G₃ *vacanam cedam abravīt*];
 4.378*.6 *ca indrasātrūn*; 4.746*.4 *atha idam*;
 5.11.20^{ab} *athovāca indrāṇīm* [N (except D₁.2.8 D₃ *m* as in text) *śakrāṇīm*]; 5.30.6^{ab} *dūta ihāgacched*.
 5.42.29^{ab} *mānayaṁtiḥa iti manyeta mānitaḥ* (K₁.4 D₁₋₆ *mānām*; Ca *pūjām*; Cs *anu-*);
 5.414*.1 *ca indriyāṇām* (Ds *kṣatriyāṇām*);
 5.141.42^{cd} *pravekṣyāma iti*;
 (b) *-a* and *-i*.
 1.223.10^{cd} *parirakṣādya iditaḥ*;
 3.196.16^{cd} *ca ihante* [N *°pihante* (B₄ *labhante*)];
 (c) *-ā* and *-i*.
 1.402*.10 *rājā ity evam*; 1.77.9^{cd} *dharmātmā iyaṁ me* (S *yāyān me*);
 1.1581* *dharmātmā idam*; 3.297.72^{ab} *rājā iti*;
 4.446*.2 *tadā idam*;

- 5.12.31^{ab} kṛtvā indrāpī [K (except K₂) D₁ .3 .4 .9 .10 śakrāpī] ;
 (d) -a and -u.
 1.2.90^{cd} tatra upākhyānam [K₀₋₂ B₄ D₂ .14 tadvadupā° ; K₄ V₁ B₁ .3 Da Dn Dr D₁ .3-5 .13 tadvadākhyānam ; D₆ .7 .9-12 caitadākhyānam ; D₈ caiva tadā° ; T₂ G₆ M (except M₁) hy upā° ; G₃ tatrāpy upā°] ;
 1.210* .1 cintayāmāsa upādhyāyā ; 1.36.5^{cd} āmantrya upapannam ;
 1.1095* .2 dvijaśreṣṭha ugre ; 1.111.29^{ab} ca upagacchet ;
 1.1673* .3 tasya upasargās ; 1.155.31^{ab} narendrasya upayājo ;
 1.177.17^{ab} caiva uddhavaś ca ;
 1.183.3^{cd} ca upopaviṣṭān [N (Dn₁ om.) cāpy upopā°] ;
 1.2009* .3 kaṭākṣeṇa upasundam ; 1.206.13^{cd} mahārāja ulūpyā ;
 1.206.18^{cd} pārtha ulūpī ;
 3.29.3^{ab} tāta utāho teja ity uta (Ś₁ K₃ cātra me samśayo mahān ; S tejo vā surasattama) ;
 3.489* .7 svakarāgreṇa udaram ;
 3.129.9^{ab} prāśya uṣitvā ;
 3.132.20^{cd} sametya utsāryamāṇo (N' protsā°) ;
 3.178.25^{ab} tāta utpātena ; 3.192.8^{ab} tāta uttāṅka ;
 3.296.1^{cd} atra ubhayoh (T₂ G₂ .4 M hy ubhayoh) ;
 4.623* .11 tadāgamyā uttarāyā ; 4.789* tena upāyād ;
 4.799* .5 ca utsrjante ; 5.14.5^{ef} atikramya uttarām ;
 5.29.4^{cd} pāṇḍavasya utsāhinah ; 5.30.7^{ab} eva upātiṣṭhethā ;
 5.32.3^{ab} dvāṣṭha upāgataṁ (K₂ .3 .5 D₉ samāgataṁ° ; G₂ didṛkṣayā dvāram upāgatas te) ;
 5.35.8^{ab} pratikṣāva upasthāne (T₁ G₃ .4 M tvadarthā me ; G₁ tvadharmā me ; G₅ svārthāmeha) ;
 5.89.9^{ab} ca upahṛtya (K₁ .4 B Dn Ds D₅₋₈ .10 apy udakam ca) ;
 (e) -a and -ū.
 1.114.44^{ab} ca ūrṇāyur (S pūrṇāyur) ;
 1.143.19^{cd} upādāya ūrdhvam [N (except K₄) sordhvam] ;
 4.1175* .2 upaplāvyā ūṣuḥ ;
 (f) -ā and -u.
 1.9.11^{cd} śṛṅgarārūpābharaṇā uttiṣṭhatu (K₂₋₄ Ñ V₁ B Da D₂₋₇ G₄ .5 prottiṣṭhatu ; T M₁ colli° ; G₁ .6 sotti°) ;
 1.99.39^{cd} avratopetā upeyāt (Ś₁ K₁ hy upeyāt) ;
 1.1159* .1 bhāryā ubhau ;
 3.81.134^{ab} vā upavāsena (Ś₁ K₁ .2 B Dc Dn D₁ .3-6 py upavāsena ; D₂ ty upa° ; T₂ G₁ .3 .4 M₂ hy upa° ; K₂ Dn D₅ py uta vāsena) ;
 3.82.39^{ab} gatvā upasprśya [Ś₁ K₁ .2 B D (except D₂ ; D₃ missing) samupa°] ;
 4.625* .1 sairandhrisahitā uttarā (G₁ .3 sahītottarā) ;
 5.45.3^{cd} vasānā ubhe ;
 (g) -ā and -ū.
 1.1606* .2 kanyā ūḍhū ;
 C (a) -a and -e.
 1.1020* ca ekabhāvāv iva ;
 1.166.3^{cd} ca ekāyanagetaḥ (Ś₁ K apy ekāyama°) ;
 1.209.20^{cd} vīra etāḥ ;
 3.81.159^{ab} samāsūcya ekarātroṣito (K₄ Dc tv cka°) ;
 3.138.14^{ad} anuprāpya eṣa ;
 4.316* .2 yantriṣaṣṭiśatārasya ekāṁśam ;

- 4.910*.6 cāvirodhena esa ;
 5.4.23^{ab} ca ekalavyasya cātmajaḥ (T₂ viśvajic cāparājitaḥ) ;
 5.169*.4 nibodha ekasmāt ; 5.33.45^{ab} bhuñjita ekaś ;
 5.43.37^{cd} cānupūrvyeṇa etad vidvan bravīmi te (D₈₋₁₀ caitat ; G₃ tathā ; Ds tad vidvan prabravīmi te) ;
 (b) -a and -ai.
 1.271*.1 caiva airāvata mahāgajaḥ ;
 (c) -ā and -e.
 1.34.1^{cd} śrutvā elāpatro ; 3.870* mahāmāyā ekena ;
 3.184.6^{cd} vā etad [Ś₁ K₁₋₃ B₂₋₃ D₂₋₄·6 apy etad ; S (except G₄) hy etad] ;
 4.223*.1 ācārasaṁpannā evaṁ ; 5.88.85^{ab} śyāmā ekavastrā ;
 (d) -a and -au.
 1.171.21^{ab} tāta aurvo'gnim ;
 D (a) -i and -a.
 1.46.26^{ab} icchāmi aṭavyām (Ñ₂ V₁ Dn D₁ tad vṛttam ; G₄₋₆ hy aṭavyām) ;
 1.696*.2 cāpi anyadeheṣu ;
 3.2.10^{cd} vanyāni anuyāsyāmahe (Ś₁ hy anuyāsyāma tvā ; K₃ T G₂₋₃ M₂ hy anuyāsyāmahe ;
 Dc yātu yāsyā° ; D₁₋₃ tvānu° ; G₁₋₄ M₁ py anu°) ;
 3.86* śakyāmi aṅgam ; 3.81.129^{ab} yānti api (Ś₁ tv api K₁ hy api ; K₂ Dn Dc G₄ yepi ;
 K₃ ye ca) ;
 3.81.168^{ab} tīrthāni antarikṣacarāṇi ;
 3.101.2^{ab} vartayanti anyonyam [Ś₁ K₁₋₂ tenyonyam ; K₄ B D (except D₅) M₁ hy
 anyonyam] ;
 3.219.41^{cd} varṣāṇi aśivās te (Ś₁ K B₁₋₃·4 Dc D₁₋₃ T M hy aśivā°) ;
 3.1236*.3 varṣāṇi aṣṭa ;
 5.33.35^{ab} praviśati aprīto (Ds₂ praviśto) ; 5.70.51^{cd} hanti ayaśasv ;
 5.153.31^{cd} ugrarūpāṇi abhavañ (K₁₋₃ B₂ D₂ T₂ G₁₋₃ hy abhavan ; K₄ B₁₋₃₋₅ Ds
 D₁₋₃·4·6·8·10 babbhuvuḥ ; K₅ prabhavan) ;
 (b) -ī and -a.
 1.61.96^{cd} suśroni asitāyatamūrdhajā [K₀₋₃ tv asitā° ; K₁ susitā° ; K₂·4 Ñ (inf. lin. sec.
 m.) T₁ D₅ svasitā° ; Ñ₂ B₁ Dn D₁₋₃·4 svasitāncite° ; T₂ G M svañcitā°] ;
 1.876* sādhvī antinārād (G₂·4·6 hy antinārād) ;
 (c) -i and -ā.
 1.958*.2 bhaviṣyāmi āhvānopagatā ; 1.111.14^{cd} cāpi ānṛśamsyena ;
 1.1730*.7 kalyāṇi ātma dānena ;
 3.13.90^{ab} kathayasi ānayainam (Ś₁ K₃ D₁ hy ānayainam ; D₂ hy ānayasva) ;
 3.36.27^{ab} jānanti ākumārām (Ś₁ hy ākumārā ; K₁₋₂ B Dc Dn D₄ T₂ G₃ M₁ hy
 ākumārām) ;
 3.184.19^{cd} bhavāni āpyāyitā [B D (except D₁₋₃·5) cāpyā°] ;
 3.190.77^{cd} abhyutsahāmi āyusmān ;
 4.1062*.1 śatasahasrāṇi abhibhūya ;
 5.89.25^{ab} annāni āpadbhojyāni (Ds D₁ T₁ G₁ hy āpad° ; G₄ cāpad°) ;
 5.111.15^{cd} āpnoti ācāro (S hy ācārāt) ;
 (d) -ī and -ā.
 4.411*.1 tanvaṅgī āmantryainam ; 4.411*.2 parīpsanti ājagāma ;
 (e) -i and -u.
 1.2107* ghorarūpāṇi ugravīryāṇi ; 3.134.28^{ab} śṛṇoṣi utāho ;
 3.178.36^{ab} hi uvāha [S₁ K₁₋₂ provāha ; S (except T₂ G₃) vahanti] ;

3.189.10^{ab} sarvabījāni upyamānāni [$K_1 \cdot 2$ tapya°; B Dn $D_4 \cdot 6$ ropyamāṇāni; T_2 G
śudhya° (G_1 vardha°)];

4.27.6^{cd} arhanti udvahantaḥ (S_1 K codvahantaḥ; D_4 prādvā°; D_{10} hy udvahantaḥ);

(f) -i and -u.

1.2029*.2 śādhvī ulūpi;

(g) -i and -e.

1.781* nāsti ekāntaratamau;

3.163.27^{ab} śarirāṇi ekibhūtāni (S_1 $K_1 \cdot 2$ caikī°; M tv ekī°);

3.198.72^{cd} adharmeti etac;

(h) -ī and -e.

5.12.8^{ab} davi etad (K_4 yat tad; K_5 T_1 $G_1 \cdot 5$ hy etad);

(i) -i and -ai.

5.56.41^{cd} āvārayiṣyanti aiṇeyān ($K_1 \cdot 5$ hariṇān);

(j) -u and -a.

3.149.46^{ab} dharmakāryeṣu arthakāryeṣu;

4.398*.12 cāsmāsu anunitā;

5.29.49^{cd} jātū anāśritya ($K_1 \cdot 2$ tv anāśritya; K_5 hy anāśritya);

(k) -u and -ā.

3.192.8^{cd} rāmyeṣu āśramas; 5.45.22^{ab} sarvabhūteṣu ātmānam;

5.47.103^{cd} astu āyusmantaḥ; 5.423*.4 tu ādaram;

(l) -u and -i.

3.937* tu icchayā;

(m) -u and -e.

4.836* tu eko.

E (a) -e and -a¹³.

1.20.11^{cd} ahīnakirte anāgataṁ ($\tilde{N}_1 \cdot 2$ V_1 B D T_1 G_6 M_4 hy anāgataṁ);

1.551* te amalām; 1.110.13^{cd} lābhe alābhe (G_4 'lābhe);

1.110.20^{ab} mārgē avīryakṛpaṇocite [S_1 K (K_1 om.) D_5 svavīryasatocitaḥ (\tilde{S}_1 °dyataḥ;
 K_3 °cite); \tilde{N} B Da D_2 svavīrya (D_2 rye) kr°; Dn $D_1 \cdot 4$ svavīryakṣayaśocite; S nirvīryakṛ°];

1.1184* prajālābhe anvagacchae;

1.1970* te anyonyasahitās;

3.61.123^{cd} kaṣṭhe amanuṣyāniṣevite (All except T_2 $G_3 \cdot 4$ M_1 hy amanu°).

3.80.119^{ab} camasodbhede agniṣṭomaphalaṁ D_3 cāgniṣṭomaphalaṁ (marg. sec. m. vājipeya°);
S gosahasra°];

3.477*.1 devayajane akṣayaṁ;

3.132.15^{cd} mene aṣṭāvakra (BD (except D_{1-3}) tathāṣṭā°);

3.242.1^{ab} sarve amātyaprarāś ca [T_1 M temātyaprarā (M_1 °mukhā) ś ca ha; T_2 $G_1 \cdot 2 \cdot 4$
kṛtam ūcur na (G_1 rdham na) rādhīpam];

4.163*.9 samare adhākṣīr (T_1 nyadhākṣīḥ; T_2 vyadhā°; G_3 hy adhā° $M_1 \cdot 2$ sv adhā°);

4.325*.2 brūte amātyāś ca;

4.26.8^{cd} te apāpās [$B_{1-3} \cdot 5$ Dn $D_9 \cdot 11 \cdot 12$ durāpās; B_4 D_6 niṣpāpās; D_1 tepāpās; D_2
te pārthās; D_5 tv apāpās; D_7 (m as in Text) svapāpās; D_{10} hy apāpās; S rakṣyā nitryam ca
($M_1 \cdot 2$ hi) daivataiḥ];

4.1133*.2 cakre arāṇyam;

5.42.8^{ab} viplavante ato (D_{n1} $D_8 \cdot 9$ ca tato).

5.119.25^{ab} sarve satyaphalabhāgināḥ (G_1 hy apatya°);

(b) -e and -ā.

1.7.8^{ab} sarve āpaḥ ($G_2 \cdot 3$ devāḥ);

¹³ When -e or -o at the end of a word or a grammatical form is followed by -a, or a grammatical form is followed by -a, the letter merges into the former. In its place the marks is generally put.

- 1.463*.3 yajñānte āstikavacanām ; 1.497* loka ākhyātām ;
 1.57.31^{ab} indraprāsāde ākāśe ;
 1.576*.3 vardhamānās te āsibhir (N̄ V₁ B₄₋₅ °mānābhir āsibhi) ;
 1.768*.2 arthe ātmārthe ; 1.107.32^{cd} arthe ātmārthe (S₁ K₁ svētmā°) ;
 1.152.19^{ab} sarve ājagmur (S₁ K₀₋₁ hy ājagmur ; K₃ apy ājagmur ; T₂ G₁₋₅₋₆ cāja° ; G₃ tv ājagmur) ;
 1.1816*.2 virājante āśām ; 3.28.11^{ab} sabhāmadhye āsanām ;
 3.148.34^{cd} vartante ādhayo (M₁ dharmaś kṣīyate kramāt) ;
 4.13.7^{ab} śubhe ācakṣva (Dn₁ hy ācakṣva) ;
 5.37.16^{cd} arthe ātmārthe (G₄ hy ātmārthe) ;
 5.42.26^{ab} vitte ādhyā [T₁ G (except G₃) hy ādhyā] ;
 5.126.48^{cd} arthe ātmārthe ;
 (c) -e and -i.
 1.1.24^{cd} anye itihāsam ; 1.496* kriyate indriyaiḥ ;
 1.76.14^{ab} nr̥pate imam̐ 1.1569*.8 loka indrajid ;
 1.1808*.2 me iti ; 3.22.20^{cd} sarve iti ;
 3.37.12^{cd} samgrāme iti ; 3.97.24^{ef} ājahre idhmavāhas ;
 5.42.23^{ab} me iti ; 5.57.14^{ab} nr̥pate iṣṭvā ;
 (d) -e and -i.
 4.120*.2 rājakule ipseta (T₁ seveta) ;
 (e) -e and -u.
 1.172.16^{cd} himavatpr̥śve utsasarja ;
 3.127.8^{cd} amātyapariṣanmadhye upaviṣṭaḥ (S₁ K₁₋₂ hy upa°) ;
 4.1077*.2 manye uttaras ;
 (f) -e and -r.
 1.1255*.1 varṣe ṛtau ; 3.357*.1 prāpte ṛtuparṇasya ;
 3.360.3 prāpte ṛtuparṇasya ;
 3.83.73^{cd} upāsante ṛṣayaś ca (S₁ K₁₋₂ M₁ munayaś ca) ;
 5.128.7^{cd} varade ṛṣabhe (K₄ D₁₋₃₋₄₋₉₋₁₀ G₅ vr̥ṣabhe) ;
 5.151.11^{cd} anuvartante ṛte ;
 (g) -e and -e.
 1.1625*.1 ākhyāsyē etad duḥkhasya (G₁₋₂ M₅ duḥkhasyaitasya ; M₃ duḥkhasyaikasya M₆₋₈ duḥkhasyaivāsyā) ;
 4.44.9^{cd} te ekena ;
 (h) -e and -ai.
 1.89.55^{cd} anavāyē ailavam̐savivardhanāḥ ;
 (i) -o and -a¹³.
 1.1800*.1 mahābāho adharmaḥ ;
 3.252*.1 vibho anāthēṛm̐ ;
 (j) -ai and -a.
 3.275.39^{ab} tasmai avindhyāya [K₂₋₃ Dc D₂ T₂ tasmā avin° ; D₁ M tasmād ; B Dn D₅₋₆ G₃ hy avindhyāya] ;
 4.50.9^{cd} vai śvātthēmā mahārathaḥ (D 7.9 sarvasāstrabhṛtēṛm̐ varab) ;
 5.88.15^{cd} vai atadarhā [N (except K₂ ; K₃ missing ; K₅ om.) G₁ na tadarha] ;
 (k) -ai and -ā.
 3.917 tā na śakyā mahatyō vai āpas tartum̐ mayā vinā (B₃ no ca śakyam̐ idam̐ vāri tvayā tartum̐ mayā vinā) ;
 (l) -ai and -i.

- 1.152.16^{ab} tasmai idam [K₂·4 Ñ₃ T₁ G (except G₅) tasmād];
 3.200 22^{cd} vai iha siddhiḥ (Dc dehasiddhiḥ);
 3.1386*.2 vai iti;
 5.166.13^{cd} vai idam yuddham (D₁ yuddham eva; D₃·4 yuddham etad; D₁₀ dvandvauddham);
 (m) -ai and -u.
 4.53* vai urvaśyā;
 (n) -ai and -e.
 1.419*.2 vai eṣa; 1.1399* vai ekalavyām;
 (o) -ai and -r.
 1.410*.1 vai ṛṣivākyena;
 (F) (a) visarga and -a.
 4.280*.1 kāmārtah abaddhāni;
 (b) visarga and -i.
 14.1472*.1 āyātah indrasya;
 III. *Hiatus between words in a pāda.*
 A (a) -a and -a.
 199.15^d ca amitadyute [S₁ K Ñ₃ cāpy amitadyute (K₅·4 tiḥ); Ñ₁·2 B Dn D₂·4 capra-
 timadyute (Dn D₂m °tiḥ); Da vā pratipadyate; D₅·M₃ cāpya (M₃ caivā) maradyute;
 T G M₆-8 caivāmitadyute];
 5.44.17^c tena abhyeti [K₁·4 B (except B₂) Dn D₁₋₆·10 cābhye (D₂₋₄ pye) ti];
 5.45.3^a āpo'tha adbhyaḥ [K₁·4 Ca.s āpo nu adbhyaḥ; Ds D₁₀ T₁ G₅ apathadbhyaḥ;
 D₂ apo vasanty atha; D₈ athāpodbhyaḥ; T₂ G₂·3 (by sandhi) āpothādbhyaḥ; G₁·4
 āpothādbhiḥ];
 5.45.9^b abhipatyā apakṣakāḥ [K₄ B (B₃ om.) Dn Ds D₂₋₆·8-10 T₂ G (G₄ om.) M₁
 (inf. lin. as in text) ca hy apakṣa (Ds D₈₋₁₀ °kṣi) kāḥ; D₁ T₁ tu pakṣikāḥ; Cs tv apakṣakāḥ];
 5.45.20^a na sādhunā nota asādhunā vā [Dn (first time) Ds D₈₋₁₀ T G M₁ C_s asādha (G₄
 °dhu) nā vāpi sasādha (G₄ °dhu) nā vā];
 5.139.5^b eva anayad (K₃ T₂ G₂·5 M₄ 'pyana°; K₄ D₈ tv ana° D₆ svāna°; G₃ hy
 ana°; M₂·3·5 'pyānayat);
 5.160.9^c tathety āha arjunah [K₁·3·5 rāḥiti tvāhārjunah; K₄ B Dn₁ Ds D₃·6·8·10
 tathety uvācā°; D₂ T₂ G₃·5 M₁₋₃₋₅ tathe (G₃ °de) ti tvāhā°; D₇ tathety āha tvām
 arjunah; T₁ G₁·2 (catalectic l) tathety āhārjunah; M₂ (hypermetrich tatheti gatvāhā°)];
 (b) -a and -ā.
 1.595*.2 tena ātmāpahārakah; 1.146.9^b na āpadah;
 3.81.41^a śāṅkhinīm tatra āsādyā (D₁₋₂ M tata; T₂ G₂ cāsādyā; S₁ śāṅkhinīm tvam
 samāsādyā, K₁ B Dc D₃₋₄·6 T₁ śāṅkhinītīrtham āsādyā);
 3.134.25^b iha āyānti (S₁ iha yānti; K₁·2·4 D₁ ihāyānti; B₁·3Dc Dn D₄₋₆ ima āyānti;
 B₂·4 M imam āyānti; D₅ ihāyāntu); 3222.7^a mama ācakṣva (S₁ K₁·2 samācakṣva ca; K₃·4
 D₁₋₃·5 M mamāpy ācakṣva; B Dn D₄·6 Cy. 3 mamādyā°; Dc tan mama°);
 5.26.13^a mānāghnasya ātmakāmasya [K₁₋₃ D₁·8 sanmānāghnasyātma (K₂ D₁ °rtha)
 kāmasya; K₄·5 D₂ °d manāghna—K₄ °sta) syātma kāmasya; B Dn. Ds D₃₋₇ ma (D₆ sammā)
 nāghnasyāsau mānakāmasya, D₉ mānārthasyātma kāmasya, D₁₀ Ca. s mānāghnasya mānakāmasya;
 T G₁·3·5 mānāghnasyāpyartha—(T₂ °nārtha—; G₃ °pyātma) kāmasya, G₂ santānāghnasyā-
 tmakāmasya; G₄ mānāstasyāpy anyakāmasya; M mānātmanaś cōtmakārya (M₁ °ma) sya];
 5.246*.7 neha āyāti (T¹ jānāti; G₄ yāti);
 5.525* maitrāvaruṇa āgnīdhrau;

- 5.148.7^a sāma ādau (T_2 $G_1 \cdot 2 \cdot 4 \cdot 5$ cāda; G_3 -bheda);
 (c) -ā and -a.
 1.3.126 dṛṣṭva aśucy;
 1.13.12^d vā adhomukhāḥ (T_2 $G_2 \cdot 3 \cdot 6$ M_2 hy adho°);
 1.59.12^c prāvā ariṣṭā (K $\bar{N}_1 \cdot 3$ V_1 B_{3-6} D_{2-3} T_2 $G_2 \cdot 4$ M variṣṭā; \bar{N}_2 Da Dn $D_1 \cdot 4$ ca viśvā; B_1 T_1 tv ariṣṭā; G_1 hy ariṣṭā; G_6 -pyariṣṭāḥ);
 1.85.8^b tathā aśītim (All except Da_2 Dn $D_1 \cdot 5$ tathāśī° N_2 tathāpy aśītim);
 1.107.19^a sicyamānā aṣṭhīlā [N (K_3 om.) tv aṣṭhī (Ko °ṣṭhai) lā; S (T_2 om.) hya (G_3 vya) ṣṭhīlā];
 1.115.25^d tajjyesthā anumanyatām [S_1 $K_{o \cdot 3}$ \bar{N}_3 D_5 T $G_1 \cdot 3 \cdot 5$ menumanyatām; $K_{2 \cdot 4}$ mānu°; G_2 hy anu°; \bar{N}_1 G_2 tvajjyesthāma (G_2 mo) nu°; \bar{N}_2 B Da Dn $D_1 \cdot 2 \cdot 4$ jyesthā ($B_1 \cdot 6$ Da °ṣṭhe; B_1 m ṣṭhā) mām anu°; $M_{3 \cdot 5}$ devī jyesthānu°; M_{6-8} tām (all inf. lin. tam) jyesthām anu° (all inf. lin. cā.u)];
 1.148.1^c viditvā apakarṣeyam [\bar{S}_1 K_1 V_1 $B_{3 \cdot 6}$ Dn D_1 $M_{3 \cdot 5}$ °tvāpi apaka°; Ko N_3 D_5 M_3 (inf. lin.) °tvā hy apaka°; K_{2-4} $\bar{N}_1 \cdot 2$ $B_1 \cdot 5$ Da $D_{2 \cdot 4}$ vyapaka°; TC M_{6-8} tad viditvāpakarṣeyam (T_1 °karṣāmi)];
 1.197.16^d maghavatā api ($K_{o \cdot 3 \cdot 4}$ D_5 -pi sah; K_2 \bar{N} V_1 B Da Dn $D_1 \cdot 2 \cdot 4$ -pi hi; T_3 G_{2-4} -pi ca);
 1.218.34^b āryamā api (K_1 T_1 tadā; T_3 G M_3 -pi ca; D_5 tv api);
 1.224.5^c santapyamānā abhito [\bar{S}_1 $K_{o \cdot 1 \cdot 3}$ \bar{N}_1 V_1 $D_1 \cdot 2 \cdot 5$ °man abhito; K_2 $\bar{N}_{2 \cdot 3}$ B Da Dn D_4 °mānā bahudhā; K_4 °mānā purato; S °mānā bhūtā ca ($G_1 \cdot 5 \cdot 6$ $M_{6 \cdot 8}$ vā)];
 3.61.92^b vismitā abhavat [\bar{S}_1 K $B_1 \cdot 3 \cdot 4$ Dc Dn $D_{1-3 \cdot 5}$ hy abhavat; S tva (G_1 cā) bhavat];
 3.127.3^d mahatā api ($K_{3 \cdot 4}$ $D_{3 \cdot 5}$ tvapi; B_1 T G M_1 pi ca; B_2 Dc Dn $D_{4 \cdot 6}$ M_2 hy api);
 3.133.2^a panthū ayaṁ te'dya mayā nīṣṭo [$D_1 \cdot 2 \cdot 3$ m panthū mayā teyam athāvasṛṣṭo (D_3 orig. panthā vipro vadati tathaiva tad dhruvam)];
 4.204* vā ahalyā; 4.596* trigartā asprśan;
 5.26.16^a yadā anvavartanta (K_2 G_2 cānva°; K_{3-5} D_8 tenva°; B Dn Ds $D_{2-7 \cdot 10}$ T_2 M_3 nānva°; $D_1 \cdot 9$ $G_{3 \cdot 4}$ $M_1 \cdot 2 \cdot 4 \cdot 5$ tv anu°; T_1 G_1 hy anva°; G_5 apy anva°);
 5.43.34^b manasā api (K_1 D_7 -pi hi; B Dn D_{1-6} -pi ca);
 5.47.80^d vā apsu [K_1 D_8 vā cāpsu ca te; K_{4-5} B Dn Ds $D_{2-7 \cdot 10}$ cāpsu ca te; D^1 vā cāpsu gate; D_9 vābhīpsitas te; T_1 $G_1 \cdot 3 \cdot 5$ M (M_2 om.) vāpy apsu caiva; $G_{2 \cdot 4}$ vāpsu caiva];
 (d) ā and -ā.
 1.84.4^d yathā ātmaśam anumūlavādi [S_1 K_{2-4} yathā cātmaśam; K_1 D_5 yathātmaśam; \bar{N} B D yathā caśam anumūlavādi (\bar{N}_3 °kūlavādi; B_1 Da °kūlas tathātmā); S (T_1 om.) yadātmaśam (T_2 G_3 yathā caśa) m apy anumūlovādi (G_3 °vān api)];
 3.134.26^b medhayā āvidānāḥ [B Dc D_1 T_2 (by corr.) G_3 cāvidānāḥ; Dn $D_{2 \cdot 3 \cdot 6}$ vāvi°];
 (e) -ī and -i.
 4.175*.21 śamī iti [T_1 śamīm iti; T_2 G śamīti ha (G_1 hi)];
 B (a) -a and -i.
 1.3.80 veda iha;
 1.672*.4 parirakṣa imam sutam (M_{6-8} tvam ātmajam);
 1.93.34^c sma iti; 1.1481.*1 dahyanta iti;
 1.1492*.1 bhīma iti; 3.24.8^c dharma iti (T_1 M_1 kaśam);
 3.35.11^c vasema ity āha 397.6^d tasya ilvalah (All except T $G_{3 \cdot 4}$ celva°);
 3.186.88^c mārkaṇḍeya ihāsva tvam (T_2 G_{2-4} mahāsatva);
 3.199.28^c bahu sañcintya iha vai (S_1 iha sañcintyamānopi);

5.31.22^b paśyema iti; 5.140.16^a karna ito;

(b) -ā and -i.

1.3.95 bhavatā icchāmiṣṭam; 1.33.25^d dakṣiṇā iti;

1.142.7^b āgatā iha (Ś₁ K Ñ₁ V₁ B_{5.6} Dn D_{1.5} T₁ tv iha; Ñ₂ B_{1.3} Da D_{2.4} °tāsmi ha);

3.3.5^d svapitā iva [Ś₁ K₃ B₄ Dc D_{2.5} swapiteva hi (B₄ D₅ he); K₂[†] B₁₋₃ Dn D_{4.6} svapitā yathā];

3.61.20^b priyā ity abravīṣ tadā [Ś₁ K_{1.3.4} B Dc_{1.4.6} priyoty asakṛd abravīḥ (K_{3.4} D_c D₁ bravīt; K₂ Dn D_{2.3.5} priyāstity abravīḥ sadā (D₂ °ty asakṛd vadan; D₃ °ty asakṛd bruvan)];

3.192.7^a sa rājā ikṣvākūḥ (K₁₋₃Dc₂D₅ rājā sa ikṣvākūḥ);

4.223*.3 devatā iva; 5.74.14^b sūcyā ivānagha;

5.140.4^b samucchrītā indraketuḥ (K_{1.5} D₉ candraketu°; K_{2.3} cendraketu°; D₂ candrakalpa°; G₃ hendraketu°; G₃ hindraketu°; M_{1.2.4} sendraketu°);

(c) -a and -u.

1.194* āha upādhyāyāḥ; 1.3.96 uttānka usyatām;

1.3.163 praviśya upādhyāyinīm; 1.1674*.6 paricarya upāśmahe;

1.205.22^a brāhmaṇasya upāhṛtya [Ś₁ K₂ Ñ₁ D_{1.2} G_{1.4} (by corr.) °ṇasvam upā°; Ko B_{1.3} °ṇasvam upāvartya; K₁ °ṇasvam upādāya; K_{3.4} B_{5.6} °ṇasvam upāvṛtya; Ñ₂ Dn D₄ °ṇam samupākṛtya; Ñ₃ °ṇasvam svamādāya; V₁ Da °ṇasvam upākṛtya; D₅ °ṇam samupāvartya];

3.83.38^b mahārāja upaspr̥ṣet; 4.881*.3 daśa uśya;

(d) -a and -u.

1.2.150^a rājñā ulūkasya preṣaṇam [K₁ rājñā ulū°; K₄ V₁ B (except B₄) D (except D_{1.4}) rājñā hy ulū°; TC_{2.3} M hy ulūkaḥ tu preṣitaḥ; G₇ hy ulūkaḥ tu prahitaḥ];

1.3.112 kṣatriyā ucchiṣṭena;

1.1245*.1 tadā uttaraphalgunyām (G_{1.2.4} cottara°; M_{3.5} tūltara°);

1.157.13^a tvayā uktaḥ [Ś₁ Ko_{2.3} (sup. lin.); 4 tvayāsmi uktaḥ; K₁ °sty uktaḥ; K₃ Ñ V₁ B D T G_{1.4} tvayā hy uktaḥ (Da T₂ °bhyuktaḥ); G_{2.3.6} M °py uktaḥ; G₃ stūktaḥ];

1.189.46^a tvayā uktaḥ (Ś₁ Ko M tvayāpy uktaḥ; K_{1.3.4} tvayāsmi uktaḥ; K₂ tvayaivoktaḥ; Ñ₁ tvayā hy uktaḥ; V₁ tvayā proktaḥ; Ñ_{2.3} BD tvayoktoham; TG tvayā cōktaḥ);

3.297.41^b pitā uccataras ca khāt [T₁ G₁ M hy ucca°; K B Dc Dn D_{2.4.6} G₃ khāt pitoccataras tathā (K_{1.2.4} °raḥ smṛtaḥ; K₃ ras tataḥ)];

C (a) -a and -e.

1.141.2^a hiḍimba etair vā (Ś₁ hy etair vā; K₄ taiḥ sarvaiḥ);

5.26.7^c avadhūya eṣa;

(b) -a and -e.

1.59.25^a iṣṭpā ekacakras ca;

1.90.79 hatvā ekacakrām;

D (a) -ī and -a.

1.98.8^c antarvatnī aham [Ś₁K_{1.2} °rvatnīty aham; Ko₄ Ñ₂ B D tv aham; N °rvartiny aham; S °rvatny aami te];

1.114.50^d miśrakeṣi alambusā [S₁ K₂₋₄ hy alambusā; Ko T G₄₋₆ M tv alambusā; K₁ hy alambusā; Ñ (except Ñ₃) B D (except Dn₃) G₂ tv alambusā];

(b) -ī and -ā.

1.110.28^a yadi āvām (S₁ Ko₂₋₄ D₅ hy āvām; K₅ B₁₋₆ Da₂ D₁₋₂₋₄ G₅₋₆ vāvām; Ñ B₅ Dn T₁ G₃ M cāvām; B₃ tv āvām; T₂ G₁₋₂₋₄ ca tvaīm);

(c) -u and -a.

3.1193*.1 tu amī;

(d) -u and -ī.

5.45.7^b madhu īsantas tadā [D₁ juśantaḥ; K₁ D₂ madhv icchantaḥ; B₁₋₂₋₃₋₅ Dn D₅₋₆ M₁ (inf. lin.) madhv iksan (D₅ °chan) taś ca te (B₁₋₂₋₅ °tas tadā) tasyāḥ; B₄ madhv iksantas tadā; Ds D₈₋₁₀ G₅ madhv īsate tad anu vidhāyinas tadā; D₃₋₄ M₅ madhv īsantaś tadā; D₇ T₁ G₁₋₄ Cś madhv īsate sadā (T₁ G₃ tathā; G₁₋₄ Cś tadā)];

E (a) -e and -a.

1.3.72 utsahe anivedya gurava iti;

1.3.126 me asūcy annam;

1.3.147 tantre adhiropya (M₁ cādhiropya);

1.41.8^d garte asminn (Ś₁ K₁ Ñ₃ TG₂₋₄₋₅ brahmann; Ko₂₋₄ sarvepya°; Ñ₁₋₂ V₁ B D vyaktama°; G₁₋₆ M hy asminn; G₃ tasminn);

1.90.14 jajñe ahaṁpātīḥ (T₁ saṁpātīr nāmā);

1.90.17 jajñe arācinaḥ (Ñ₁₋₃ surā°);

1.90.19 jajñe ayutanāyī; 1.90.20 jajñe akrodhanaḥ;

1.90.38 jajñe ajamiḍhaḥ;

1.90.42 jajñe arugvān nāma (Ñ₂ subhago);

1.90.43 upayeme amṛtām;

1.119.11^a tathey ukte ambikayā [Ko G₃₋₄ M₆₋₈ -ty āmbika (G₃ M₇ °kā) yā; K₂₋₃ Ñ₂₋₃ B₅ Dn₁ n₂ D₁ T₂ G₆ M₃₋₅ tv āmbi°; K₄ Ñ₁ Dn₃ D₅ T₁ tv āmbikāyā; B₆ D₄ sām̐bi°; D₂ cāmbikayā; G₁ sām̐bikayām; G₂ tv āmbikāyā; K₁ tv ābhikāyā; B₁₋₃ sā tathety ukām̐bikayā];

1.207.17^b kule asmin (S₁ kulepy asmin; Ko₂₋₄ Ñ₁ hy asmin; K₁ M₅ tasmin; K₂ N₂₋₃ V₁ B D T G M₃₋₆₋₈ lesmin sam̐-);

1.214.9^a dharmarāje atipṛityā (Ś₁ Ko₃₋₄ Ñ V₁ BD hy atī° (Da dyuti°); K₁ tv atī°; K₂ G₁₋₂ M hy ābhi°; T₁ prajāḥ prītāḥ; T₃ G₃₋₆ °py ābhi°);

3.36.19^b kṣatre ajāyathāḥ [Ś₁ K₁₋₃₋₄ Dc D₂₋₅ kṣatrenvajā°; K₂ B Dn kṣatreṣu jā° (B₂ kṣatre tv ajā°); D₄ tu jāyathāḥ; D₆ nu jāyathāḥ; TG₃ hy °ajā°; G₁₋₂₋₄ M₂ vyajā°; M₁ kṣatrebhyajā°];

3.206.16^d yuyante alpabuddhayaḥ (Ś₁ K₁₋₂₋₄ Dc Dn₃ D₁₋₃ yelpa°; K₃ D₅ hy alpa°; B Dn₁ n₂ D₄₋₆ G₃ cālpa°; T₁ G₁₋₂₋₄ M svalpa°; T₂ bahvabu°);

5.25.5^c kule anṛsaṁsā [K₄ tv anṛsaṁsā; B D (except D₁₋₂) S hy anṛ°];

5.195.19^d trailokyotsādane api (K₁₋₂ trailokyadahaneṣv api; K₄₋₅ B₃₋₅ Dn₁ D₁₋₃₋₄₋₈ G₂ M₄ °tsādaneṣv ca; B₂ T G₁ M₁₋₃₋₅ °tsādaneṣv api; D₂ G₃₋₅ hy api; D₁₀ prabho);

(b) -e and -ā.

1.94.38^d mene ātmānam [S₁ K₁ hy ātmā°; Ko₂₋₄ Ñ₂₋₃ V₁ B D (except D₅) sotmā° S cātma°; Ñ₁ manasātmānam eva vā];

1.100.2^d niśithe āgamiṣyati [N T₁ hyā (D₂ dyā) gami°; T₂ G₂₋₄₋₅ samupe°; G₁ °theḥy āga°; G₃ M₃ (sup. lin.) -6-8 °thebhyāga°; G₆ M₃ (orig.) .5 niśāyām āgami°];

1.109.18^b vigarhe ātmakāraṇāt [Ś₁ K₁₋₃₋₄ T₂ M₃₋₅ tv ātma°; Ko₂ nātma°; Ñ₁₋₂ Da Dn D₁₋₄₋₅ cātma°; N₃ tvāma°; T₁ G M₆₋₈ tvām aka (G₅ °dha) rmanā];

4.35.22^c brhannaḍe ānayethā;

(c) -e and -i.

1.67.5^b me ita āśramāt [Ko₂₋₄ Ñ₃ me sa ihā (Ñ₃ to) śramāt; K₁ D₂ me sa (D₂ mama) tapodhanaḥ; S (G₃ om.) mama (M₃₋₅ me sa) mahātapaḥ (T₁ °yafāḥ)];

- 1.90.56 ucchidyate iti; 3.13.47^c te ime (Ś₁ K₃ D₁₋₃ trayo);
 5.184.6^d prabhātasamayē iva (K_{1-2.5} yathā; B₃ Dn Ds D_{1-2.6.8.10} tadā; D₃ C₃ nrpa;
 T G₁₋₂ mama);
 (d) -e and -u.
 1.57.20^b kriyate ucchrayo [M₃₋₆₋₈ ucchrayah kriyate; K₁ Ñ₁₋₂ V₁ Dn D_{1-3.5} Cd
 -tyucchrayo; K₂₋₄ B₃ Da D₄ bhyucchrayo; D₂ hy utsavo; T G kurvanty etc. dhvajocchra-
 yam (C₃ °jotsavam)];
 3.40* paiṭhīngotre utpanno;
 4.25.2^c sarve udikṣadhvam (K B₁₋₃ Dn D_{5.11.12} T₂ Cc nirikṣadhvam; B_{4.5} D_{1-2.4.7m.8}
 hy udikṣadhvam; D₆ bhyudikṣadhvam; D₇ vinikṣadhvam; D₁₀ pratikṣadhvam; T₁ G M
 parikṣadhvam);
 (e) -e and -r
 1.3.89 te ṛtumatī; 1.3.173 te ṛtavah;
 1.4.1 satre ṛṣin abhyāgatān upatasthe [M₅ satre vartamānebhyāgata (sthe) paurāṇikān ṛṣin
 upa°);
 1.47.10^a tatas te ṛtvijaḥ [Ñ V₁ B₁₋₃ M (except M_{1.5}) tatas ta ṛtvi°; M_{1.5} cartvijah]
 1.48.4^c ye ṛtvijaḥ sadasyās ca (G₂ ṛtvijaś ca sada°);
 1.57.58^b pārāvāre ṛṣin sthitān (K₁ vanam r°; K₂ pārāvaram r°; K₃ Ñ₃ B D_{1-2.5} vāram
 r°; K₄ °vāran r°; Ñ₁₋₂ V₁ Da Dn D₃₋₄ T M₆₋₈ pārāvāre sthitān ṛṣin);
 1.90.22 jajñe ṛcaḥ (Ko cirah; K₂₋₄ B₄ ricah; Ñ₁₋₂ Dn D₁ 'riho nāma (D₁ nāmatah);
 B₁ rihah; B₃ vimdhah; D₅ kṣatih); 1.1049*.1 pāre ṛṣin;
 3.83.105^a etc. ṛṣivarāḥ (M₁ 'py ṛṣi°);
 3.111.8^d kriyate ṛṣyaśṛṅgaḥ (B Dc Dn D₄₋₆ carṣya°; D_{3.5} vai yathāvat; T₁ G₁₋₄ M
 carṣya°); 3.552* samāyāte ṛṣyāśṛṅge;
 3.134.12^b ime ṛtavah (B₃ dhātavah);
 5.109.12^a te ṛṣayah (K₂ te munayah; T₁ G₁₋₂ devarṣayah);
 (f) -o and -i.
 1.51.8^d atho indrah [Ko G₃ M_{1-3.5} athātrendrah; K₂ athaṇi cendrah; K₃ tatas tv indrah;
 K₄ B (B₂ missing) Da Dn_{1. n2} D_{2-4.6.7} T₂ G₄₋₆ athā (B₃₋₄ T₂ yathā; Dn₂ atho)
 marendrah; Ñ₁₋₂ V₁ Dn₃ D₁₋₅ G₂ atho (G₂ yathā) mahendrah; Ñ₃ G₁ yathā tv indrah;
 T₁ yathā cendrah; M₂₋₄ atha tv indrah];
 (g) -ai and -a.
 5.42.5^a vai asurāḥ;
 (h) -ai and -u.
 1.668*.6 sa vai uttamapūruṣah (T₂ sa tu vai puruṣottamaḥ M₅ sa evottama°);
 4.616*.2 vai uṣitā;
 (i) -ai and r
 3.114.6^c vai ṛṣayo (S₁ K B₁ D₃₋₅ davarṣayo; T₁ G₁ M caivarṣayo; G₂₋₄ evarṣayo);

IV. In visarga sandhi hiatus after conversion to -o.

A. Between two pādas.

- 1.48.6^{cd} abhavaḥ chāringaravo adhvaryur [Ś₁ Kc₂₋₄ 'dhvaryur; K₃ Ñ V₁ M_{1-2.4.5}
 'thādhvaryur; D₂ hy adhvaryur; T G_{3-4.6} M₃ hya (G₄ thā) dhvaryur];
 1.76.35^{cd} hr̥ṣṭo anujñāto (K D_{3.5} sonu°; Ñ₁₋₂ B_{3-4.6} Dn 'nujñātotha; B₁ Da D₂₋₄
 svanu°; B₅ samā°; G₁₋₂ hy anu°; G₃ -py anu°);
 1.158.50^{ab} vājino avadhya (Ś₁ Ko. hy avadhya; S manojñā);
 3.80.73^{cd} rantidevābhyanujñāto agniṣṭomaphalam (B₄ tv agni°; D₃ hy agni°);

3.80.80^{cd} *somo aśvamedham* [Ś₁ K_{2.4} B₄ Dc Dn D₅ *sośvamedham*; K₁ *hayamedham*; B₁ D₃ (sup. lin. as in text)_{4.6} S *vāji*^o; D_{1.2} *sośvamedhaphalam*];

3.82.128^{cd} *kurvāno agniṣṭomaphalam* (B_{1.4} *hy agniṣṭomam*; D₃ *tv agniṣṭomam*; T₂ C₂₋₄ *na durgatim avāpnuyāt*);

3.97.4^{cd} *kartavyo aham* (Ś₁ K₁₋₃ B₂₋₄ Dc D_{1.2.5} *tv aham*; K₄ Dn D_{4.6} T₁ G₁ M₂ *hy aham*; D₃ *svayam*);

3.110.1^{cd} *ramyo eṣa*;

3.110.19^{cd} *khyāto aṅgānām* [Ś₁ K D_{1-3.5.6} *tvam* (K₃ *vam*) *gānām*; B Dn₁ S *hy aṅgānām*];

3.187.17^{cd} *sūryo aham* (Ś₁ K_{1.2} B₂₋₄ Dn D_{4.6} *tv aham*; B₁ Dc T₁ G₁ M *hy aham*);

3.197.36^{ab} *vedān yo adhiyeta* [B₁₋₃ Dc Dn D_{4.6} G₃ M₁ *'pya* (M₁ *hya*) *dhīyād* *dvijapuniḡavaḥ*; B₄ D_{1.2} *hy adhiyād* *dvijasattama*; D₅ *hy adhiyeta* *dvijottama*; T₂ G_{1.2} *hy adhiyāno* *dvijottama*];

3.198.80^{ab} *sarvabhūṭadayāvanto ahimsānirataḥ* [Ś₁ K D_{1-3.5} S (except G₃ M₁) *hy ahimsā*^o];

4.59.14^{cd} *bhīṣmo arjunam* [B (B₅ om.) D_{2-5.7.8.10} *pārtham* ca; Dn D_{9.11.12} *pāṇḍavam*; T C₂ M₁₋₄ *hy arjunam* M₅ *-py arjunam*];

5.26.19^{cd} *nopalabhyo atyāsannam* [K D_{1-4.8.9} C₂ *labdham* *santam* (K₃ *svakam*; D_{1.3.4} *sarvam*; D₂ *artham*); B Dn Ds D₅₋₇ D Cs *sarvam* *svakam* (B₁ *avakarmabhūtam*); T G_{1.3} M *hya* (T₁ G₁ *pra*) *tyāsannam*; Ca.d *baddham* *santam*];

5.30.37^{cd} *tebhyo anāmayaḥ* [K (except K₄) B (B₁ missing) D (except D_{1.2}) G₃ M₂ *'py anā*^o; T G_{1.4.5} M_{1.3-5} *hy anā*^o];

5.32.19^{cd} *ahino anānṛṣamsyaḥ* [K₄ *naro nṛṣamsyaḥ*; B (B₁ missing) D T₂ *naro nṛṣamsam* (D_{1.9} *ayaśasyam*)];

B. Between two words in a pada

1.646*.3 *ṛṣibhyo ṛṣayaḥ*;

1.84.13^b *mahato ajayam* [Ś₁ K₁ *yājayam*; Ko Ñ₃ *'jayam*; K₃ *to'ham jayan*; K₄ D_{5m} *toham jayam*; Ñ_{1.2} B D^o S *cājayam*, S^o *toham* (T₁ G₅ M₇ *toyam*) *jayeyam* K₂ *'jayam*];

1.91.3^c *tatra rājarṣayo āsan* [N (B₃ *marg.*) *hy āsan* (B₃ *orig.* *rājan*); T₂ G_{1.2.4.5} *sarve*; T₁ G_{3.6} M *rājarṣayas tathā* (G₆ *da*) *sarve*; 1.1159*.1 *mṛgo ṛṣir*;

1.147.2^b *roravitho anāthavat* (Ś₁ K₁ *tv amātravat*; Ko₂₋₄ Ñ_{1.3} *tv anātha*^o; D_{4.5} T G *hy anātha*^o; M *karuṇam vilapiṣyatha*);

1.149.6^d *śreyo ātmavadho* (Ś₁ K_{3.4} D_{1.5} *nātma*^o; Ko₂₋₄ Ñ V₁ B Da Dn D_{2.4} T₁ G_{3.4.6} M *śreyān ātma*^o; K₁ T₂ G_{1.2.5} *hy ātma*^o);

1.149.7^d *śreyo ātmavadho* [Ko_{2.3} *nātma*^o; K₄ *śreyān nātma*^o; Ñ_{1.2} V₁ B D va (Da pa) *ram ātma*^o; Ñ₃ C₂ M *kutas tv ātmavadho* (Ñ₃ *to*); T G_{3.4.6} *kṛtas tv ātma*^o; G₅ *pratyavāyo hi budhyate*];

1.167.21^a *raṣṭro attum* (Ś₁ K Ñ₁ *bhakṣayitum*);

3.116.15^c *kopo agacchat* (Ś₁ K_{3.4} D₅ *vyagacchat*; K_{1.2} D₂ C₄ M *'py aga*^o; B Dn D_{1.4.6} T₂ G₁₋₃ *'bhyaga*^o; Dc *'dhyagād vai*; T₁ *hy agacchat*);

3.221.45^c *niṣpatanto adṛśyanta* (Ś₁ K_{1.2} B_{1.3.4} *hy adṛ*^o; B₂ Dn D_{4.5} T G₃ M₁ *'bhyadṛ*^o; D₆ C_{2.4} *vyadṛ*^o; G₁ M₂ *'py adṛ*^o);

5.44.15^d *sūryo aḥnāya jāyate* [K₁ *sūryohnāya prajāyāte*; K₄ *sarvam āhnāya*; B Dn D₁₋₆ *sūryopya* (B₃ D₅₋₆ *hya*) *hnāya*; Ds *sūrya āhvayate sadā*; T₂ *sūryo brahmā hy ajāyate*];

V. *Hiatus in a compound.*

- 1.16.35^d nārāyaṇaurogataḥ (Ko.2.4 D₅ °vibhūṣaṇam; K₁ °śirogataḥ; Ñ₃ G₂₋₅ M °śiropegaḥ; B₄ °manēgataḥ; D₂ °śiromaṇiḥ; T G₆ sa ca nārāyaṇam gataḥ);
 1.2033⁺.3 dvijarājaraṣiṇāmca;¹⁴
 3.93^{*}.3 suraṣimānavārcitaḥ;
 3.40.54^b cakṣuḥ pūrvatṣir bhavān [K₂ divyāny astrāṇi yair bhavān; K₄ pūrvavibhāvanam;
 S (T₂ G_{3.4} om.) pūrvam munir bhavān];
 3.148.13^a sāmayaḥjagvarṇāḥ;

VI. *-ā treated as -a.*A. *When it follows -e.*

- 1.41.5^d garte'tāms trāṇam [Ś₁ K₁ tantra°; Ko 2-4 tāms trā°; Ñ_{1.2} V₁ B₃ Dn D₅ T G₂₋₄₋₆ svatrā°; Ñ₃ B_{1.2.4.5} Da D_{3.4.6.7} °rteṣu trā°; D₁ svaśaraṇam; D₂ ārtān svatrā°; G₁ M (M_{2.4} om.) °rtesmiṁs trā°; G₃ saṁtrā°];
 1.53.18^c te'stike (D_{3.5-7} te cāstike);
 1.68.64^c amale'tmānam;
 1.70.41^d sthāsyāmi te'jñayā [T G (except G₆) °mi cāhñayā];
 1.71.6^b vavrire'ngirasaḥ;
 1.198.19^c manyate'tmānam (Ś₁ hi svam; Ñ₁ V₁ rājan);
 3.113.5^d paryāvavrite'sramāya;
 3.158.58^d gaccha te'jñām [N tat tavā (D₅ °tova) jñām];
 3.178.38^c bubudhe'tmānam;
 3.226.11^a nādriyante'jñā (Ś₁ K_{1.2} B₁ tvām; T₁ M °smān; G₄ Ismin);
 3.252.9^b bhūtaye'tmanah [Ś₁ K_{1.2} B₄ D₃ (by corr.) punah];
 5.103.19^a manyase'tmānam, 5.149.42^d manyate'ātmānam;

B. *In visarga sandhi.*

- 1.71.22^b yauvanago'mukhe [Ñ_{1.2} BD (except D₅) °gocare (B₅ raḥ; D₃ raiḥ); T G₄₋₆ M₃ °gīm mukhe; G_{1.2} °gān munc; M₅₋₈ °ge mukhe];
 1.168.21^c tasya rājño' jñayā* [Ko.1 Ñ V₁ B D (except D₅) rājnas tasyāññayā; S tasya rāj-
 notha sa (G₃ °sya rājññayā)];
 1.218.14^d jaladhārāmucō' kulān (Ś₁ K_{1.4} B Da Dn D_{4.5} °dhārāsamākulān; Ko.3 T₁ G_{1.2} M_{3.5} °mucotulān; K₂ D₁ bahūn; Ñ V₁ °mucontarāt; D₂ °dhārām tatotulām;
 T₃ G_{3.4} °muconilān; M₆₋₈ °dhārā mumocivān);
 3.97.6^c bhuktavaty asuro' hvānam;
 3.113.7^c bhavato' śramāya (Ś₁ K_{1.2} B₁ D_{3.5} T₁ G_{1.2.4} M₂ bhavadāśramāya; K₄ Dn₃ °taḥ śramāya);
 3.175.2^a yo' hvayaḥ; 3.197.44^c dvijo' tmānam (Ś₁ K₂ B Dc Dn D_{3.4.6} T₁ sa svam ātmā°; K₁ svasamā°; K₄ D_{2.5} svayam ātmā°);
 3.198.1^c dvijo' tmānam (Ś₁ K₁₋₃ B_{2.3} Dc Dn D₃₋₆ G₃ sa sva (B₂ tva) m ātmā°; K₄ D_{1.2} svayam ātmā°);
 3.267.40^b vrajato' jñayā (T₁ mayā; G₁ yathā);
 4.21.20^c alamcakṣra so' tmānam [K D_{2.4.7.9} cātmānam; M svam deham; B Dn D_{5.6}.
 8.10.12 alam (D₆ evam) cakre tadātmānam; T G alamkāram cakārāsau];

¹⁴ Though the sandhi of *r-* after any vowel except the last four, is optical, still the form is rarely found in literature.

- 5.110.20^b yo'' tmānam; 5.149.42^b so'' tmānam;
 5.164.6^b sambhrto'' śramavāsina;
 5.166.5^b santo'' tmabalasaṁstavam [K₄ B Dn Ds D_{3.4.6.8.10} santaḥ svabalasaṁstavam;
 D₂ T G M₁ (inf. lin.) santa ātmabalastavam];

VII. -a and -ā = a in a pada

- 1.17.23^c praveritām¹⁵ [T₁ G M_{3.5} pravepitām (G₆ °coditām); T₂ °vepitā (sup. lin. pracoditā)];
 1.76.73^d nirmālyeva praveritā [T₂ G₂ 4.5 visarjitā; G₆ nirākṛtā; M₃ pravāsitā; M₈ praveśitā; Ñ V₁ B D nirmālyam ivā cojjhitā (D₅ °lyeva pravāritā); T₁ G_{1.3} °lyavad upekṣitā];
 5.173.5^d praverita (K₄ prabodhitā; K₅ B_{1.2.5} Ds D_{7.10} S praveśita; B_{3.4} pracoditā; D₂₋₄ pracāritā);

VIII. Double crasis when

(A) Visarga preceded by -a and followed by -a.¹³

- 1.116*.3 parityāgomlikāsutāt; 3.58.32^c atonimittām;

(B) Visarga preceded by -a and followed by any vowel except -a.

- 1.3.146^b śrutaseneti [D₂ S (G₁ missing) °sena iti śrutah];
 1.31.17^c asāṁkhyeyeti (Da asāṁkhyāye°; Dn₁ n₃ D_{1.3.6.7} °khyā iti; D₄ T₁ °khyam iti; M_{2.4} °yam iti tvāham);
 1.44.20^d nāmāstiketi¹⁶ (S₁ K₁ °stika iti śrutam);
 1.57.31^e rājoparicarety evam; 1.536* mahākāleti;
 1.115.20^a jyeṣṭham yudhiṣṭhīrety āhur (S yudhiṣṭhīra iti jyeṣṭham);
 1.115.20^b bhīmaseneti madhyamam [K₃ senam tu; T G bhīmam ity eva (T₂ G_{1.2.6} bhīma ity eva); M (M₅ om.) dvītiyam bhīma ity api];
 1.115.20^c arjuneti tṛtiyam [S (M₅ om.) tṛtiyam arjunam iti (G_{1.2} M_{3.6.8} °na iti)];
 1.115.21^a pūrvajam nakulety evam [S (M₅ om.) °lam ceti];
 1.115.21^b sahadaveṭi cāparam (T₁ °devam athāparam; G_{1.2.6} °devam tathā°);
 1.127.21 arjuneti janah kaścit kaścit kṛnēti bhārata |
 kaścid duryodhanety evam bruvantaḥ prasthitās tadā ||
 1.147.21^d sopasarpati [S₁ K₁ Ñ₃ °kam smo (K₁ so) patiṣṭhati; K₂ °kam smopasar°.
 K₃ °kam copatiṣṭhate; K₄ °kam sobhitiṣṭhata. Ñ_{1.2} B_{1.5.6} Da D_{1.4} T G_{1.3} °kam upasa°;
 V₁ B₃ Dn °kam anusa°; D₅ °kam samusa°; G₅ °kam apasa°];
 1.169.8^a tātety [T₂ G (except G_{2.3}) M (except M₅) tātam tvam];
 1.223.5^d lelihānopasarpati (Ko prasarpati; K_{2.4} Ñ₂ B₃ Dn D_{4.5} T G₅₋₆ M₅₋₈ visarpati; K_{4m} Ñ₃ B_{1.5.6} Da visarpitā; V₁ avasarpati; G_{1.4} api sarpati; M₃ vanas-patin);
 3.327*.2 tvaramānopacakrame;
 3.106.2^c vasudeveyty; 3.125.28^c māndhāteti;
 3.132.6^b kahoḍeti (B_{1m} kahoḍha iti; K₂ B₂₋₄ Dc Dn D_{4.6} kahoḍa iti);
 3.163.33^d sopaciyata (S₁K smopaciyate; D₃ T₁ G_{1.4} copaciyate; M₂ sarvas tair upaciyata);

¹⁵ We get this form from pra + ava + īrita.

¹⁶ In the previous stanza of the same adhyāya we get a correct sandhi (āstika ity uta).

3.198.72^c adharmeti [K₄ B_{2.4} D_{2.3.5} adharmah syāt; D_c adharmeṣu; T₁ adharmas ca]; 3.207.12^a sopāsarpac];

3.221.77^a mahāsenety evam uktvā [K₁ G₂ °senam tv evam; B_{2.4} D (except D_{1-3.5}) °senam evam; G₃ evam uktvā mahāsenam; G₄ surātmajam tv evam uktvā];

3.249.6^b koṭikāśyeti (B₄ ś cāti); 3.250.4^b koṭikāśyeti

3.254.10^d bhīmeti; 3.290.21^d eṣopacārah (B₁₋₃ D_{c2} D_{n2} D_{1.2.5} evo°; D_{n1} N₃ D_{4.6} G₃ evā°);

3.293.12^c vasuṣeṇety;

4.9.9^d tantipālety; 5.139.10^a vasuṣeṇety;

5.143.12^c sūtaputrety;

5.145.36^a karaṇahīnety (K_{1.2} D_{2.7} G₂ °hīnoyam; K₄ B D_{n1} D_s D_{1.6.8.10} M_{1.2} °hīnatvāt; D_{3.4} °hīnas tu; D₉ °hīno vai);

5.187.25^b tatholukāśrame (K_{1.2.5} tathārcikāśrame, K_{3.4} B D_{n1} D₁₋₄ 6.8.10 G₁ M₄ tatholukā°; D₇ tathā kaṇvā°);

(c) Visarga preceded by -ā and followed by -a or -a.

1.21.6^d pannagābhavan (K_{o.2.4} D_s phaṇino; K₁ cāhayo; for pannagā);

1.58.50^b pītavāsītaprabhaḥ [B (except B₆) D_n D₃ °vāsīh sītī°];

1.87.18^b vasumanābravit [N B D G₃ vasumān abra°; T₁ M (except M₆) vasumanāś cābra°];

1.98.31^a tān sa dīrghatamaṅgeṣu [S (except G₆) aṅge (T₂ G₃₋₅ °gaṅ) dīrghatamās tān sa (T₂ G_{1.24.5} °mās tasyāh)];

1.119.14^d pāṇḍavābhavan [N (K₁ om.) tejasā° (B₆ Da te tadā)];

1.1361.*2 cotkaṇṭhitābhavan;

1.124.25^d vismitābhavan (Ś₁ K₁ vismayam yayuh; D₄ °tānanāḥ; T₂ G_{4.5} prekṣya sarve savismayāḥ);

1.128.12^b bhāgīrathyāham [Ś₁ K D₅ jāhnavyām (K_{o.3.4} °jyāḥ) aham; G₂ thyās tvam];

1.154.24^d bhāgīrathyāham (Ś₁ K jāhnavyām aham);

1.1882* sāparādhāpi (K_{o.4} sāparāddhā hi; K₃ D₅ °dhā hi; B₃ °ddhā hi; D₂ svaparādhepi; Ś₁ K₁ svāt parād vāpi K₂ B₆ D₄ svaparād vāpi);

1.189.11^c tasyāśrubinduḥ (K₁ V₁ B₃ Da T G (except G₁₋₆) tada (T₃ dā) śru°); 1.1990*.2 ucchritābhavan;

1.200.11^b prītamanābhavat [N (except N₁ V₁) °manās tadā (D₄ stathā)];

1.201.10^a devābhavan bhītā [N bhayam cakruḥ (Ś₁ N_{1.2} B₆ Da D_n jagmuḥ)];

1.208.14^a apsarāsmi (Ś₁ K_{o.1.4} N₁ D₅ °rā hy asmi kaunteya);

3.17.4^b śaṅkṛtābhavan (S tadā);

3.19.2^d pare ca muditābhavan [K₂ B D_n D_{4.6} bhīṣam; S (except M₂) sālvah pramudito-bhavat];

3.25.2^a samāsmābhīr (K₃ D_{n2} sahā°; T G M₁ dvādaścmāni varṣāṇi);

3.25.22^a sahitābhīpetur (T₂ G_{3.4} sahasā°)

3.39.19^d prītamanābhavat;

3.80.21^d prītamanābhavat (B₁ D₃ prīto-bhavat tadā; M₁ (prītamanā abhūt);

3.81.131^c sarasvatyāruṇyāś ca (Ś₁ D_{1.2} sarasvatyāruṇā°);

3.684.*2 sahitāmagha;

3.166.8^d dānavābhavan (K₁ D₅ sthitāḥ);

3.176.36^a tasyānāthāyā [\dot{S}_1 K₁.2. katham tasyēm anāthāyām; K₄ D₁₋₃.5 G₁ M₁ katham tasyā hya (D₃ M₁ a-; G₁ -pya) nāthāyā; B Dc Dn D₄.6 tasyāh katham (B₄ katham tasyās) tv anāthāyā]; 3.187.1^a devēpi (K₁ na);

3.207.7^b āngirābhavat;

3.211.8^b āngirāṣṛjat [\dot{S}_1 K₂ B Dn₁.n₂ D₄.6 T₂.G₃ āngirāṣṛjat; K₄ Dc Dn₃ D₁₋₃.5 cāsrjad am (D₅ am) girāḥ];

3.215.13^b sahit'bruvan (\dot{S}_1 sahasā°; B₁ sarvato°; D₃ te saha°);

3.265.20^c paradārīsmi¹⁷ alabhyā (K₁.2 D₁ na; G₂.4 M₂ hi).

4.13.14^a paradārīsmi (Cap °dārīḥ smaḥ; Crp anyadārīḥsma);

4.455*.1 vyathit'bhavan (T₂ vismayam gat'ḥ);

4.61.5^d tvarit'bhyupeyuh (B₄.5 D₁.3.5.6.8.10 tvarayā°);

4.67.18 samast'ksauhin'pālā;

5.4.15^d paścim'n'pāśśca;

5.10.39^b vitimir'bhavan (D₁ vitamaso°);

5.10.46^c bhātābhavan;

5.30.32^d āvasathāpramattāḥ (K₁.3 Dn M₃ āvasathāḥ);

5.37.21^c ucit varuddh'ḥ [\dot{S}_1 B₄ Dn D₁₋₇.10 T₂ vam (D₇ u) citā vai viruddh'ḥ; Ds ucitās cāva°; D₁.2 uci (D₂ kupi) tā viruddh'ḥ T₁ G₁.3. - M ucit'parādāḥ (G₃ dh.t);

5.86.16^d vyathito viman bhavat (S vīmanā vyathitobhavat);

3.111.16^c garhaṇīyēpi (K₁.2 Dn₁ D₁₋₄.8.9 °yā hi);

D -e or -o followed by any vowel except -a or -ā.

1.11.13^b jāyateṭi parā'ṣṛutiḥ (Ko.3 jīyat'ti; K₁ °te ha; Ñ B Da Dn D₁ bhavatiti; V₁ °te hi; G₂ jīyate paramā'ṣṛutiḥ); 1.144.11^c vasat.ha¹⁸ (\dot{S}_1 K₁ vasanto hi);

1.1986*.1 n'rhateti;

3.170.5^d kim idam dīṣyateṭi vai (\dot{S}_1 K₁.2.4 D₁.2 °tetra; D₃ T₁ puram; B Dc Dn D₄.6 kim idam vartatedbhutam);

3.177.22^b vidyateṭi ha; [\dot{S}_1 K₁.2 bhavat'ti ha; K₃ B₂.3 Dc Dn D₄.6 T₁ M₁ vidyat'ti ca (B₃ Dc T₁ M₁ ha); K₄ D₁₋₃ vidyate tv iti (D₂ yathā also); B₄ vidyate tathā; B₁ vedyat'ti ha; D₅ bhav t tv iha];

3.200.26^b mriyateṭi m'ṛḥḥ (\dot{S}_1 K₁.2.4 D₁.3 mriyate pram'ṛḥḥ; K₃ Dc₁ Dn D₄ G₄ M mriyat'ti m'ṛḥḥ; D 1.5 mriyate kilet);

3.230.8^c śīśatety evam; 5.29.2^b śāmyateṭi*;

5.105.8^a kariṣyēti (K₁.2 D₁.7.10 Karom ti);

IX. Miscellaneous.

1.124.8^b vidurēnugato (for viduro'nugato) (Ñ₁.2 Dn nirgato viduro; B Da D₁.4 viduro nirgato; T₁ D₅ viduron°);

1.209.10^d hasat'pi (for hasato'pi) (Ñ₁ svairesv api; D₃ sahas'pi);

3.37.16^{cd} an'dhrīṣya abhedyakavac'vṛtaḥ (for anādhrīṣyo'bhe°);

3.133.18^b brahmodyam (for ?) (\dot{S}_1 K₄ D₁.2 T₁ G₁ brahm'dya vai; K₁ brahm'dibhiḥ; K₂.3 B₄ Dn D₄.6 brahm'dvaitam; B₂ brahmadvaitam; D₃ T₂ G₂₋₄ brahm'dyam vai; D₅ brahmagnam vai);

5.40.9^a ajokśā candanam (for ajokśās candanam or ajokśāḥ candanam); [K₁ D₇ G₃.5 ajośvaḥ (G₅ °śviḥ); K₄ D₂.5.6 T₁ M ajokśāḥ; D₃.4 ējokś'ḥ; D₈ G₁.4 ajokśaḥ];

5.48.2^a u'anā ca [K₄ Ds D₁ T₂ G₁.3.5 M (except M₁) u'sanās ca];

5.80.17^d prasr'tāgrabhuk (for prasr'to'grabhuk);

¹⁷ Do we get the form from paradāā (fem. sing.) + asmi? Mar the mas. sing. 1.173.24^c (śodāre) and 4.13.15^a (paradāre),

MAHĀBHĀRATA MANUSCRIPTS IN THE TRAVANCORE UNIVERSITY COLLECTION¹

By

P. K. NARAYAN PILLAI

I describe² below some manuscripts of the Mahābhārata in the Travancore University Collection.

ĀDI PARVAN (Complete Mss).

1. No. 4883 begins with 1.1.5.³ after the two benedictory verses (i) *Nārāyaṇam namaskṛtya* etc., and (ii) *pārāsarya vacaḥ* etc., and extends up to the end of Ādi (1.260.21). Devanāgarī characters, Indian paper—14" × 6½", Folios—350 ; Lines (to a page 10—12 ; Letters (in a line) —40 in the text and 50 in the commentary.

¹ Under the auspices of the University of Travancore, a collection of ancient Oriental Manuscripts was begun in 1938 with a view to organising a library for the furtherance on Oriental studies and research. During the short period of five years (1938–43)—too short a period indeed when the success achieved is taken into account—some 14000 codices comprising not less than 18000 works were collected and deposited in the library with all necessary arrangements for their safe preservation and with all facilities for making them accessible to the world of scholars. The Curator's collection which enshrined the invaluable treasures published in Trivandrum Sanskrit Series has also been merged into this collection making the total number of codices not less than 17000 comprising nearly 22000 Mss. The Manuscripts Library of His Highness the Maharaja is another big collection of ancient and valuable manuscripts deposited at the Fort Trivandrum. Both the Palace collection and the Curator's collection are descriptively catalogued and the complete set of catalogues in 23 volumes is available at the Government Press, Trivandrum.

² Every manuscript (Ms.) is described in two sections. In the first section are given, (1) The serial number of the Ms. in the Library Register, (2) The extent of the Ms., (3) Characters, (4) Materials, (5) Size, (6) Number of folios, (7) Number of lines to a page, (8) Number of letters in a line, (9) Date given in the Ms. The second section contains information regarding (i) The present condition of the Ms., (ii) Writing, (iii) Marginal notes or additions, (iv) Method of pagination, (v) Number of chapters, (vi) Nature of Colophons, (vii) Commentary if any, and (viii) Other portions of the Mahābhārata and other Mss. in the codex. Other relevant information regarding the Ms. is also given in the section.

³ Reference is made to the Kumbhakonam Edition (K. Ed.) of the Mahābhārata, Nirṇaya Sagara Press, Bombay, 1907 A. D.

The Ms. is in good condition but a few folios here and there are slightly subjected to the ravages of worms. Writing is good, legible and uniform. The end of every hemistich is marked by two vertical red lines. The statements such as *Vaiśampāyana uvāca* etc., and colophons are written in red ink. The marginal lines are also in red ink. Folios have serial numbers. On the margin to the left is written "bhā ā" evidently the abbreviation for Bhāratam Ādiparvan. And on the right margin of every folio is written "Rāma". The colophons generally read.....iti Mahābhārata Ādiparvaṇi. But occasionally it gives the name of the *upaparvan* or *upākhyāna*. (See fols. 210 ; 226 etc. In this Ms. there are 215 chapters corresponding to which the Kumbhakonam Edition (K. Ed.) has 260 chapters.⁴

The Ms. contains the text and the commentary *Bhāratārtha-dīpikā* by Haribhaṭṭa.

2. No. 10011. begins with 1.1.5.5.⁵ after the benedictory verses (i) *jayati Parāśara-sūnuḥ* etc., (ii) *Pārāśaryavacaḥ* etc., and the passage *om nāmo bhagavate Vāsudevāya* etc., and extends up to the end of Ādi (1.260.21).⁶ Devanāgarī characters ; Indian Paper - 17½" × 6½" ; Folios - 472 ; Lines - 9 ; Letters - 40. Date - Śaka-1675 (A. D. 1753).

The Ms. is in good condition but a few folios at the end are damaged to a certain extent. Writing is tolerably good. Colophons and fragments like *Yudhiṣṭhira uvāca* are painted with a pigment of orange colour. On the left and right margins of every folio are seen written "Ādiparvan" and "Rāma", respectively. The folios are given serial number. No. 4 is given to three folios, No. 243 to two folios, No. 354 to two folios, and No. 381 to two folios. The colophons do not give the number of chapter. The Ms. contains 245⁷ chapters.

The Ms. was copied in Śālivāhana Śaka 1675=A.D. 1753. (See Colophon—Śālivāhana Śaka 1675 varṣe Śrīmukha nāma saṁvatsare etc.,—fol. 472). It was copied by Maṅgalavyāsa a son of Vārāṇasī. (See the colophon—Vārāṇasyātmajena Maṅgalavyāsena Ādiparva likhitam idam. fol. 472). The Ms. contains the commentary—*Bhāratākūṭacandrikā* by

⁴ B. O. R. I. Ed. has 225 chapters.

⁵ Ibid., 1.1.1.

⁶ Ibid., 1.225.19.

⁷ Ibid., 225 chapters.

Ratnagarbha, son of Hiranyagarbha who is the son of Mādhava. (See colophon on fol. 472).

3. No. 10137 A. begins with 1.1.5.⁸ after the benedictory verse—*Nārāyaṇam namaskṛtya* etc., and the passage—*om namo bhagavate Vāsudevāya* etc., and extends up to the end of Ādi (1.260.21)⁹ Devanāgarī characters; Indian paper—15" × 6½"; Folios—364; Lines—12–13; Letters—42–44.

The Ms. is in good condition. It cannot be very old. The writing is good. The verses are numbered. The end of every hemistich is invariably indicated by two vertical lines. Such lines are also used to serve the purpose of a full stop. The copyist has used the margin also wherever he felt the necessity of a little more space to complete a verse in the text or a sentence in the commentary. (See fols. 281; 341 etc., etc.). On the left margin of the folios is written Ādi or Bhā. Ādi and on the right one appears either Rāma, or Heramba or Śrī. The folios are numbered. The colophons mention sporadically *parvan*, *upaparvan* and *upākhyāna* but not the number of chapter.

The Ms. contains the commentary *Bhāratabhāvadīpa* by Nīlakaṇṭha, a son of Govinda-sūri.

4. No. 3405. begins with the benedictions *śrī Gaṇeśāyanamaḥ*, *śuklāmbaradharam* etc., and three other benedictory verses. (1.1.2 and two others). Then the text proper begins with 1.1.5.¹⁰ and ends with the last verse in Ādi (1.260.21)¹¹ Devanāgarī characters; Hand made paper—15" × 6½"; Folios — 222; Lines — 12–14; Letters — 56.

The Ms. looks very old and the writing has faded to a certain extent. Yellow pigment is applied to a few folios here and there. The Ms. begins on the second page of the first folio. The writing is legible. The end of every hemistich is marked by two vertical red lines. Red pigment is applied to the colophons. The folios are numbered on the second page. On folio 3^a verses 1.1.89–92¹² which are wanting in the original Ms. are written on the upper margin. On the lower margin are written six

⁸ B. O. R. I. Ed. 1.1.1.

⁹ Ibid., 1.225.19.

¹⁰ Ibid., 1.1.1.

¹¹ Ibid., 1.225.19.

¹² In B. O. R. I. Ed. these verses are not seen.

verses 1.1.109—114¹³ which are not included in the original Ms. Such marginal additions are seen on a good many folios, written apparently by more than one hand. In this, Ādi is complete with 247¹⁴ chapters. Many colophons that do not mention *upaparvan* or the name of the chapter or *upākhyāna* are met with herein.

5. No. 5877. The text proper begins with 1.1.5¹⁵—and runs to the end of Ādi. Malayalam characters; palm-leaf—26" × 2"; Folios—244; Lines—9; Letters—76.

The Ms., even though not in a damaged condition, appears to be of fairly good antiquity. The borders of the folios are worm-eaten. The upper edge of the first folio is so damaged that the benedictory verses in the beginning could not be read. Writing is very legible and fairly good. There is hardly any correction or over-writing. Two folios each are numbered 106 and 107. The folios are numbered by akṣaras.¹⁶ In this Ms. Ādi comprises 256 chapters of which 197 belong to the Sambhava. (See colophons on folios 242 and 244).

ĀDI PARVAN (INCOMPLETE MSS.)

6. No. 5550. begins with 1.1.5¹⁷ after benedictions (*Anantaśāyi sahāyam* and the verses—1. *śuklāmbaṛadharam* etc., 2. *yasya dvirada-vaḥtrādyaḥ* etc., 3. *namo dharmāya mahate* etc., 4. *Vyāsaṃ Vasiṣṭhana-pīṭaram* etc., and ends with Sambhava, 1.213.27.¹⁸ Grantha characters; palm leaf—15½" × 2½"; Folios 164 (excluding the four extra folios), lines 12; Letters—40.

The Ms. is not at all injured. In the writing two hands can be distinguished. The first is tolerably good but the second is shabby and the letters are too small. Only 143 folios are numbered. The portions 1.39.37—1.123—parallel to 1.99.26—1.189.22¹⁹ in K. Ed. is wanting in the Ms. Colophons give *parvan*, *upākhyāna* and *adhyāya*.

¹³ Ibid., these verses are not seen.

¹⁴ Ibid., 225 chapters.

¹⁵ Ibid., 1.1.1.

¹⁶ na 1; nna 2; nya 3; śkra 4; jhra 5; hā 6; ba 50; tra 60; tru 70; cha 80; ṇa 90; ṇa 100.

¹⁷ Ibid., 1.1.1.

¹⁸ B. O. R. I. Ed. does not contain this chapter.

¹⁹ Ibid., 1.69.18 to 1.162.....K. Ed. 1.189.22 is not seen in the parallel chapter B. O. R. I. Ed. 1.162.

At the end a folio contains some portion from *Mahābhārata* and another one contains some portion from *Yuddhakāṇḍa* in *Rāmāyaṇa*. In the second page of the latter folio is seen an index of *parvans* in the *Mahābhārata*. There is a blank folio each at the beginning and at the end. These four folios are not included in the number 164 given above.

7. No. 4214. After the benediction *Śrī Rāmachandrāyanamah* and the benedictory verse *vāgīśādyā* etc., the text proper begins with 1.1.5²⁰ and extends up to 1.108.12 * ²¹ in *Sambhava*. Telugu characters; Palm leaf—16½" × 1¾"; Folios—173; Lines—8; letters—56.

The Ms. looks very old and ill-preserved. Two folios at the end are worn out on both the left and right sides. Writing is good and legible. On the margin of fol. 1^a to the left is inscribed—*Śrī Venkātācalapati egati Bhāratam Ādiparvam*. The beginning of a chapter is indicated by a cross like diagram on the margin. The folios are given serial numbers on the above page. Usually the colophons give the names of *upaparvan*, *upākhyāna* and the number of *adhyāyas*. But occasionally we see long colophons stating many other usual things.

8. No. 2291 begins with 1.1.18 ²² and contains the rest of *Ādi*. Grantha characters; palm leaf—16¾" × 1¼". Folios—294 (excluding the three missing ones No. 1, 154, and 155, and including the eight damaged folios at the end for which new folios are supplied.) Lines—10; Letters—48.

The Ms. looks very old and is rather in a worn out condition. The sides of the folios are invariably worn out, and the inside is also seen worm-eaten here and there. The eight folios at the end are very much dilapidated. The sixth one is reduced to such a size that it serves only the purpose of an indicator of the former folio. The Ms. is renovated once. In the place of the old 64th folio there appear two new folios both numbered as 64. The old folio No. 173 is also replaced by two new folios. At the end there are twelve new folios the originals of which are tacked on to the end. All these sixteen new folios are written by the same scribe

²⁰ Ibid., 1.1.1.

²¹ Ibid., 1.95.8*.

²² B. O. R. I. Ed. 1.1.10.

but evidently different from the scribe of the original. The original writing is rather minute but it is fairly legible. It is of a fixed style and by the same hand. There is very little of erasures and corrections. The renovator had to write two folios for every original folio. According to the last colophon the Sambhava parvan is divided into 183 chapters. (See colophon of fol. 286). Āstika and Pauloma together have 42 chapters. (See colophon fol. 59). So on the whole there are 225²³ chapters in Ādi. The colophons as a rule give the name of *parvan*, *upa-parvan*, *upākhyāna* (See Śākuntale fol. 102) etc., and the number of the chapter. But occasionally they make some omissions also. The Ms. is not less than 300 years old.

9. No. 2370 begins with 1.1.5²⁴ and extends up to a portion in the 38th chapter in Sambhava parvan, i.e., up to 1.96.52.²⁵ Grantha characters; palm leaf—18½" × 1¾"; folios—142; (excluding the blank folios at the beginning and end and 2 old folios at the beginning); Lines—8—9 Letters—60.

The folios do not seem to be very old but their sides are mutilated. To the end, nearly fifteen folios have lost more than two inches of their lower segment on the left hand side.

The holes on folios 4—26 meant for stringing them together have widened and have slightly obliterated this writing. The writing is fairly good and very clear. In the beginning two folios are re-written on new palm leaves but the originals are still kept there. Between the original folios 32 and 57 there appear eleven new folios of which the lower segment of 7a is left blank. These folios look definitely newer than those on which the first two folios are re-written. So, it is clear that Ms. was renovated twice. Folios are sometimes seen wrongly paginated. The last colophon in the Ms. reads—"iti śrī samhavaparvaṇi saptatrimśo adhyāyaḥ" (Fol. 141) In this Ms. *Suṭaḥ* is used instead of *Sautiḥ*. The Ms. is not worn out very much and does not create an impression of great antiquity.

10. No. 3456. After benedictory verses the text proper begins with 1.1.5²⁶ and extends up to a portion of the 27th chapter in Sambhava

²³ Ibid., 225 chapters.

²⁴ Ibid. 1.1.1.

²⁵ Ibid., chapters 89 to 100 in K. Ed., describing Śakuntalopākhyāna have no parallel.

²⁶ B.O. R. I. Ed. 1.1.1.

i.e., up to 1.85.11^{ab27}. Grantha characters ; palm-leaf—16½" × 1¼" ; Folios—133 ; Lines—9 ; Letters—48.

The Ms. is in a dilapidated condition. Some folios (like 59, 60 etc.) are damaged beyond repair. Folios 77, 81, 86, 97—100, 102, 108, 113—14, 121, 125, 129—31, are new ones but they are also subjected to the ravages of worms. So it follows that the Ms. got damaged on account of negligence and not due to its age. This is also supported by the not-too-dirty appearance of the folios. The writing is fairly good. The colophons in the Ms. generally give the name of the work, *upaparvan* and number of the chapter.

11. No. 8300-A. Seven benedictory verses appear at the beginning and the text begins with 1.1.5²⁸ and extends up to the 40th chapter in Āstika (1.59.10)²⁹ Malayalam characters ; palm leaf—19" × 2" ; Folios—60 (excluding the folios of other *parvans*) ; Lines—9 ; Letters—55 ; Date—M. E. 983—A.D. 1808.

The Ms. is in good condition. It has not been used very much. The name of the scribe is Subrahmanya (See fol. 10^b). The writing is excellent. The *upākhyānas* are mentioned on the margin by the original scribe. On the margin of folio 3^b the verse 1.1.189³⁰ is written. This is omitted in the body of the Ms. The folios are given serial number using akṣaras. This is a common feature of Malayalam Mss. For the 40³¹ chapters (*iti Āstike catvāriṃso adhyāya. Fol. 60*) in the Ms. the K. Ed. has 59 chapters. In certain colophons the title of the work with its usual attribute a *Saṃhitā* of a lakh of verses, name of *parvan*, *upaparvan*, *upākhyāna* and *adhyāya* and the number of *adhyāya* are given. (See folios 6^b, 60^b.)

The first chapter in the *upaparvan* Amśāvatarana is absorbed into the Āstika. In Malayalam Mss. it is seen that the Amśāvatarana is not recognised as an *upaparvan*. (See below Malayalam Mss.).

Two folios are seen at the beginning, one with the *parvan* index to the whole *Mahabhārata* and the other with a subject index to *Adi* up to

²⁷ *Ibid.*, 1.86.11ab.

²⁸ B. O. R. I. Ed. 1.1.1.

²⁹ *Ibid.*, 1.53.36.

³⁰ *Ibid.*, 1.1.111.

³¹ *Ibid.*, 53 chap.

Āstika. At the end are seen a few blank folios among which a folio numbered as five contains verses from the Udyogaparvan. This contains the colophon at the end of the 7th chapter in Udyoga.

The Ms. is only a portion of the codex 8300 which contains Udyogaparvan also.

12. No. 10483. After the benediction *hariḥ śrī Gaṇapataye namaḥ* the text begins with 1.1.5³² and extends up to 1.59.10³³. Malayalam characters ; palm-leaf—16½" × 1½"; Folios—72 ; Lines—8 ; Letters—56.

The Ms. is not very old and is in good condition. The writing in the Ms. is nothing less than an excellent piece of art. Folios are given serial number using *akṣaras*. For the 40³⁴ chapters in the Ms. (see the last colophon.....*Āstike catvārtimśo adhyāya*) there are 59 chapters in the K. Ed. ; colophons generally mention only the upa-parvan and adhyāya.

13. No. 10584-A. The text proper (1.1.5)³⁵ begins just after the simple benediction *Hariḥ śrī Gaṇapataya namaḥ*. The Ms. extends up to 1.59.10³⁶ Malayalam characters ; Palm leaf—9¾" × 1¼"; Folios—98 ; Lines—9 ; Letters—36.

The Ms. is eaten here and there by worms. Still it is in a fairly good condition. Three folios (76–78) in the middle are broken. It looks older than 200 years. Writing is good and very legible. The first folio is not numbered but marked *śrī*. The folios are given serial number using *akṣaras*. *Upaparvan* and chapters are only generally mentioned in colophons.

This Ms. is only a part of the codex No. 10584. The other part contains another work.

14. No. 10174 begins with a benedictory prose passage and the verse *Nārāyaṇam nameskṛtya* etc. The text proper begins with 1.1.5³⁷ and

³² B. O. R. I. Ed. 1.1.1.

³⁴ Ibid., 53 chapters.

³⁶ Ibid., 1.53.36

³³ Ibid., 136.36.

³⁵ Ibid., 1.1.1.

³⁷ Ibid., 1.1.1.

ends with 1.35.4³⁸; Devānagarī characters; Hand-made paper—13" × 6½"; Folios—48; Lines—12; Letters—36.

The Ms. is in fairly good condition. The handwriting is rather ugly. Only the first forty folios are numbered.

In a few pages here and there spelling mistakes are seen corrected. The correct syllable is given on the margin. In a separate folios—verses 1.1.49–74³⁹ are written with the direction in Marāṭhī—*dūsaryā patrīca śodhana patra hoy*. These verses would have otherwise been omitted in the Ms. This is written by the same hand that copied the Ms.

The Ms. is from Mahārāṣṭra country as is clear from the direction in the supplement to folio 2.

15. No. 1250^c begins with the benedictory verse "*Sarasvatī namas tubhyam* etc. The text proper begins with 1.1.5⁴⁰ and runs up to 1.29.5⁴¹ (*bhrūṇahatyā tu*). Malayalam characters; Palm leaf—5¼" × 1¼"; Folios—30; Lines—6; Letters—20.

The Ms. is so damaged that to handle it without further damaging it is impossible. Some folios, especially the last one, are broken. The writing is legible, but not attractive. This Ms. is only a part of a codex containing two other works more.

16. No. 12530. begins with the benedictory verse *śuklāmbāradharam* etc. The text proper begins with 1.1.5⁴² and extends up to 1.29.5.⁴³ Grantha characters; Palm leaf—17¼" × 1¼"; Folios—38 (excluding a blank folios at the beginning and eighteen written folios and two blank folios at the end); Lines—9–10; Letters—50.

The Ms. looks rather a new one. The black pigment that is usually applied to make the writing clear is applied only to folios 2, 3 and 9. The writing is good, the style is uniform, and the letters are small. The folios contain correct serial numbers. The last colophon—*iti āstīke dvādaśo adhyāyāḥ* (Fol. 38^b) shows that the Ms. contains the first 12 chapters completely and a portion of the next chapter. In K. Ed. nearly 29

³⁸ Ibid., 1.31.4.

⁴⁰ Ibid., 1.1.1.

⁴² Ibid., 1.1.1.

³⁹ B. O. R. I. Ed. 1.1.—54–8.

⁴¹ Ibid., 1.1.205c.

⁴³ Ibid., 1.25.5.

(BORI Ed. 25) chapters correspond to this Ms. In the colophon *upaparvan* and *adhyāya* are mentioned.

Eighteen written folios found at the end appear to contain a portion of some commentary on the Mahābhārata.

17. No. 10504-B. begins with 1.1.5⁴⁴ after the benediction “*Hariḥ śrī Gaṇapataye namaḥ, avighnam astu*” and contains the beginning portion of Ādi up to 1.5.24^a.⁴⁵ Malayalam characters; Palm-leaf 24" × 2"; Folios—16; Lines—7-9; Letters—90.

The Ms. looks very old and is considerably damaged. The last folio is broken. Most of the folios are brittle and full of small holes and depressions due to the ravages of worms. Even the side boards look damaged. The writing is not very attractive, but it is legible and of uniform style. The folios are numbered serially by *akṣaras*, but the number is visible only on a few folios since the margin on the left hand side is worn out in the case of many folios.

The codex contains the Ms. of Udyogaparvan also, and it appears to be old.

18. No. 2989. After *Hari śrī Gaṇapataye namaḥ* the text proper begins with 1.60.1⁴⁶ and extends up to the end of Sambhava parvan (1.191.61).⁴⁷ Grantha characters; Palm Leaf—21" × 1½"; Folios—229 (excluding the blank folios at the end); Lines—6-9; Letters—48-52.

The Ms. is in good condition even though the edges of a few folios at the beginning are spoiled by white ant and some folios are damaged to a certain extent. The writing is legible. Two different styles are noticed in the writing but this need not necessarily mean the Ms. was copied by more than one hand. Verses 1.128.22^{cd}, 1.128.67^{cd}, 1.129.65^{cd}—68^{ab}, and 1.140.66^{ab} are inscribed on the margin of the folios, 102^a, 104^b, 107^b, and 132^b respectively. These passages are omitted in the body of the Ms. The writing on the marginal space is very much crammed and

⁴⁴ B. O.R. I. Ed. 1.1.1.

⁴⁵ *Ibid.*, 1.5.19.

⁴⁶ *Ibid.*, 1.54.1.

⁴⁷ *Ibid.*, The verse is not seen. Chapter 1.165 is parallel to chapter 191 in K. Ed.

illegible. It is written by the same hand. Such marginal additions are seen on folios 136, and 167 also. The addition looks comparatively fresh. So it is clear that somebody has made this addition at a time later than that of the copying of the Ms. Here and there some corrections are also seen in the Ms. Folios 160 and 215 are not numbered. According to the last colophon—" *iti sambhave pancaviṁśacchatatamo adhyāyāḥ* " (fol. 229) the Sambhava parvan has 125 chapters.

Of these 125 chapters, the first six are the last six chapters of the Amśāvatarāṇa parvan seen in K. Ed. Thus it is seen that recension merges the Amśāvatarāṇa in the Sambhava. (See below No. 5035).

19. No. 5035 begins with 1.60.1⁴⁸ after the benediction *Hari śrī Gaṇapataye namaḥ, avignnam astu*, and extends up to the end of Ādi (1.260.21).⁴⁹ Malayalam characters; Palm leaf—12" × 1½"; Folios—176; Lines—10–12; Letters—52.

The Ms. is not very old and is in good condition. The last folio alone is slightly damaged and broken. The writing is excellent. Folio 64^b is left blank. Folios are numbered by *akṣaras*. No. 133 is seen repeated once. The Ms. contains 200 chapters parallel to chapters 60–260⁵⁰ in the K. Ed. According to this Ms the 200 chapters it contains constitute the whole of Sambhava. So, in the recension represented by this Ms. Amśāvatarāṇa, Jatugrha etc., up to Mayadarśana, are not recognised as *upa-parvans*. (See other Malayalam Mss.) Colophons usually give *upa-parvan* and *adhyāya*.

A folio that contains all the 248 *viliyadi vākya*s is tacked on to the end.

20. No. 10562 begins with 1.60.1.⁵¹ and extends up to the end of Ādi. (1.260.21).⁵² Malayalam characters; palm leaf—20" × 1½"; Folios—198 (excluding a blank folio each at the beginning and end); Lines—10–11; Letters—65.

The Ms. is old but is in good condition. The writing is very beautiful, legible, and of uniform style. Occasionally some letters are scratched off as wrong by putting a dot over them. The margin is very clean but for

⁴⁸ B. O. R. I. Ed. 1.54.1.

⁴⁹ *Ibid.*, 1.225.19.

⁵⁰ *Ibid.*, chapters 54–225.

⁵¹ B. O. R. I. Ed. 1.54.1.

⁵² *Ibid.*, 1.225.19.

the serial numbers in *aṣṣaras*. Folios 148 and 168 are numbered 149 and 169 respectively but there is no break in the continuity of the text. So, even though the last folio is numbered 199 (the first folio is not numbered) actually there are, only 198 folios.

On the whole there are 200 chapters in the Ms. (See colophon..... *Sambhava parvaṇi dvīṣatātamo adhyāya*, Folio 198). Colophons generally state only the name of the upaparvan and the number of the chapter.

In the Ms. the *Amśāvatarāṇa* is not recognised as a separate *upaparvan*.

21. No. 8299 begins with 1.60.1⁵³ (after the benediction *Hari śrī Gaṇapataye namaḥ avighnam astu*) and extends up to the end of *Ādi*. (1.260.21).⁵⁴ Grantha characters ; Palm leaf—18" × 2" ; Folios—258 (excluding the two blank folios and two folios of subject index at the beginning and three blank folios at the end). Lines—8 ; Letters—48.

The Ms. is in good condition and is not very old. The writing is fair and legible. The folios are given serial number. The Ms. contains 200 chapters that constitute the *Sambhava*. The portion corresponding to this in K. Ed. has 201⁵⁵ chapters (60–260) (See above—No. 5035).

22. No. 10642 begins with (*Sambhava*) 1.60.1⁵⁶ after the benediction *Hariḥ śrī Gaṇapataye namaḥ, avighnam astu* ; and extends up to (*Sambhava* 1.129.88⁵⁷ Malayalam characters ; Palm leaf—11" × 1¾" ; Folios—168 ; Lines—8 ; Letters—30.

The condition of the Ms. is good but it looks pretty old. The writing is bold, clear and of uniform style. The margin is left blank. Folios are numbered by *aṣṣaras*.

The Ms. contains 62 chapters (See colophon —*iti sambhava parvaṇi dvīṣaṣṭitamo adhyāya*—Fol. 168) for which the K. Ed. has 70⁵⁸ corresponding chapters. Colophons generally give *parvan* and *adhyāya* only.

⁵³ *Ibid.*, 1.54.1.

⁵⁴ *Ibid.*, 1.225.19.

⁵⁵ *Ibid.*, There are only 172 chapters.

⁵⁶ *Ibid.*, 1.54.1.

⁵⁷ *Ibid.*, 1.114. is the corresponding chapter, but the verse is not seen.

⁵⁸ B. O. R. I. Ed. has 61 chapters.

On the side board is written *Itappallī Mathaṭhilaṣa Sambhava-parvam ādi*, i.e., the Ms. which contains the beginning of Sambhava belongs to Itappallī Matha.

23. No. 11038 begins with 1.60.1⁵⁹ and extends up to a portion of the third chapter in the *Caitraratha upa-parvan* (1.181.7)⁶⁰ Malayalam characters ; Palm leaf—21" × 2" ; Folios—117, (excluding three blank folios at the beginning and four at the end). Lines—8-9 ; Letters—70-80.

The Ms. looks very old and the edges of the folios are slightly damaged. But the writing is not at all mutilated and the Ms. is in good condition. The writing is legible and shows a fixed style. But it is not so beautiful as the writing in Ms. No. 10562. There is practically no correction or overwriting. Serial number of the folios is given on the marginal space. As is usual in Malayalam Mss., the number is indicated by *aḥṣaras*. The last folio has no serial number. The Ms. contains only 114 chapters and a portion of the 115th chapter. The corresponding portion in the K. Ed. has nearly 122⁶¹ chapters. In the colophons are generally mentioned the name of the *upaparvan* and number of *adhyāya*.

The opening portion *śrutvā tu sa* of the beginning verse is obliterated. In the same verse the portion *abhyāgachad rsi* was originally omitted by the copyist but the necessary space for inscribing it was left blank. This lacuna is found filled on a later occasion by a different hand.

All the colophons mention *Sambhava parva*. So, the *upaparvans*, *Aṁśāvataṛaṇa*, *Jatugṛha*, *Hiḍimbavadha*, *Bakavadha*, and *Caitraratha* are not recognised as such ; on the other hand they are taken to be parts of *Sambhava*.

24. No. 161 begins with 1.85.8⁶² (*Sambhava*) and extends up to a portion of 155th chapter in *Sambhava* i.e., up to 1.245.6 ;⁶³ Grantha characters ; Palm leaf—16½" × 1½" ; Folios—196 (excluding the folios of other parvans at the end) Lines—10 ; Letters—64.

The Ms. looks very old and is in a damaged condition. Two folios at the beginning and four at the end have lost considerable portion on the

⁵⁹ *Ibid.*, 1.54.1.

⁶⁰ *Ibid.*, 1.155.7.

⁶¹ *Ibid.*, 102 chapters.

⁶² B. O. R. I. Ed. 1.86.8.

⁶³ *Ibid.*, 1.213.5.

right hand side. Some folios (Ex. 130, 246-287, etc.) are almost missing. Writing on the upper segment, to the left hand side, of the eleven folios in the middle (120-130), is mutilated to some extent. The sides of folios are also slightly worm-eaten. In the place of the folio 126, appears two main fresh folios both numbered 126. This shows that the Ms. was once repaired. The writing is legible and good. There is neither correction nor any marginal addition. The pagination is faulty in the case of certain folios. (See 244-238-242-240-239 etc., etc.) But the text is continuous. The Ms. contains chapters 28-155 of Sambhava. In K. Ed. chapters 85-245⁶⁴ form the parallel portion. Generally colophons mention *upaparvan* and chapter.

The twelve folios at the end contain portions of Pauloma and Āstika in Ādi. The Ms. may be estimated to be 300-500 years old.

25. No. 10597 begins with (Sambhava) 1.130.1.⁶⁵ and extends up to the end of Ādi (1.260.21).⁶⁶ Malayalam characters; Palm leaf— $13\frac{1}{2}'' \times 2''$; Folios—154; Lines—10; Letters—55.

The Ms. is in good condition and it does not look very old. But on account of the ravages of worms the last two folios have become fragile. In the middle also portions of some folios are eaten by worms. The writing is excellent due to the uniform formation, beauty, and legibility of letters. There is very little correction in the Ms. Pages are numbered by akṣaras as is usual in Malayalam Mss. The Ms. has 138 chapters parallel to 131 chapters (130-260)⁶⁷ in the K. Ed. The Ms. represents the recension in which there are 200 chapters in the upaparvan Sambhava. (See colophon on fol. 154^b).

The colophons sporadically give the name of the work, *parvan*, *upaparvan*, and *upākhyāna*, and the name and number of chapter.

II. SABHĀ PARVAN (Complete Mss.)

26. No. L. 199⁶⁸ begins with 2.1.2. after *Hariḥ śrī Gaṇapataye namaḥ* and extends up to the end of Sabhā 2.103.39. Malayalam characters; Palm leaf— $22'' \times 1\frac{3}{4}''$; Folios—183; Lines—7; Letters—48-50.

⁶⁴ *Ibid.*, 86-213 chapters.

⁶⁵ B. O. R. I. Ed. 1.114.

⁶⁶ *Ibid.*, 1.225.19.

⁶⁷ *Ibid.*, 112 chapters (114-225).

⁶⁸ L. shows that the Ms. is taken on loan and deposited in the Library.

The Ms. is a very old one and its sides are much injured. Worms have also destroyed some portions on the upper side. A few folios are broken and partly lost (See Folios 151 and 152) and a few others are brittle. The writing is shabby but shows a uniform style. The folios are numbered serially. The Ms. has 114 chapters corresponding to 103 in the K. Ed.

The colophons generally mention the *parvan*, *upaparvan*, and the name and number of the chapter.

The Ms. appears to be very old.

27. No. 2565 begins with 2.1.2 (for the Ms. does not contain any benedictory verse) and extends up to 2.103.39. Grantha characters; Palm leaf—17" × 1½"; Folios—176; Lines—8; Letters—48.

The Ms. is not very old and is in good condition. The writing is fair and legible. On the first folio at the top is noted the variant *kim cakāra mahātejās tan ma* (See 2.1.2) for the original '*Pāṇḍavāḥ kīmakurvanta sarvam*' by a different hand. It may be noted that the variant noticed by the later text corrector agrees with the K. Ed. At the top of the folio No. 35 is written 2.20.21^d—23^a a portion which was omitted by the original scribe in the Ms. The omission was due to the scribe's mistaking the expression, *Pāṇḍaveyau ca pratasthuh* of 2.20.21 for the same expression found in 2.20.23. also. The correction agrees with the text of the K. Ed. On folio 36 the hemistich *samutpannas tu śūdrāyam Gautamaḥ śāmsitavrataḥ* is shown to have the variant—*samutpādya svajāyāyām Gautamādin śubhavrātān*. The parallel in K. Ed. agrees with neither of these. Here and there some spelling mistakes are also corrected (See Fo'. 26).

The Folios are numbered. No. 91 is repeated once. The Ms. contains 119 chapters (Colophon.....*ekonavimsacchatata mo adhyāyuh* Fol. 176) parallel to 103 in K. Ed. Occasionally only one meets with long colophons.

28. No. 8301-A begins with 2.1.2. without any benediction and contains the whole of Sabhā (i.e. the portion up to 2.103.39) Grantha characters; Palm leaf—19" × 2½"; Folios—63; Lines—10-13; Letters—82-85; Date—M. E. 980—A. D. 1805.

The Ms. is neither very old nor worn out, nor does it appear to have been used much. The letters are small, neat and legible. On the left hand side margin of the most of the folios is seen inscribed the subject index by

a different scribe on a later occasion. The very same subject index is written in a folio at the beginning by the original copyist. Corrections are few and far between. Folios are given serial number. The Ms. has 114 chapters (See colophon.....*caturdaśa-śata-tamo adhyāyaḥ* Folio 63^a). K. Ed. has only 103 parallel chapters. Generally the colophons give only *parvan* and *adhyāya*. (See Folios 62^b ; 61^a etc.). Occasionally long colophons are also seen (See Folio 2^a, 63^a).

The codex also contains Virāṭa parvan and a portion of Vana Parvan. The original owner of the codex was Cokkal Mahārāja. The scribe was one Rāmasvāmi the son of Sahasranaman, who belonged to Puttur, Kāveripattanam, Choladeśa (See Folio 63).

29. No. 10508-A begins with 2.1.2 after the benediction *Gaṇapataye namaḥ*, and extends up to the end of Sabhā. (2.103.39). Malayalam characters ; Palm Leaf—20" × 1 $\frac{3}{4}$ " ; Folios—125 (excluding a missing folio) ; Lines—9 ; Letters—65.

This palm leaf Ms. is very old and damaged to a great extent. The sides are worn out and the inside is eaten by worms in a destructive manner. Two folios at the end and one in the middle (See Fol. 97) are broken. There are some more fragile folios. The writing is good and of fixed style. The folios are numbered but the number is not generally visible due to the fact that the margin is worn out, and eaten by worms. The colophons as a rule include the name of the work, *parvan*, *upaparvan*, *upākhyāna* and name and number of *adhyāya*. The Ms. contains 114 *adhyāyās* parallel to 103 in the 'K. Ed.

The Ms. appears to be very old.

The codex contains portions of Āśvamedhika and Bhīṣma parvans. From the inscription on the side board it is clear that the codex originally belonged to Idappalli Maṭha.

30. No. 10574 begins with 2.1.2 after the benediction 'Harīḥ śrī Gaṇapataye namaḥ avighnam astu' and runs up to the end of Sabhā (2.103.39). Malayalam characters ; Palm leaf—15" × 1 $\frac{1}{2}$ " ; Folios—155 ; Lines—8 ; Letters—60.

The Ms. is in good condition but it looks pretty old. From the upper side worms have eaten into the Ms. The writing is as good as any high class printing. In addition, it has the special value of being written by

an iron stylus on palm leaf material. The Ms. contains no correction. The pages are numbered by akṣaras. There are 115 chapters instead of 103 in the K. Ed. Colophons generally contain parvan, upākhyāna and adhyāya.

31. No. 10612 begins with 2.1.2 after the benediction *Hariḥ śrī* etc., and extends up to the end of Sabhā 2.103.39. Malayalam characters; Palm leaf—12" × 1½"; Folios—173; Lines—8; Letters—45.

The Ms. is in a fairly good condition. It cannot be very old. Nor is it used much. The writing is of average beauty and neatness. Here and there some corrections of spelling mistakes are seen inscribed on the margin. The folios are numbered by *akṣaras*. There are 104 chapters parallel to 103 in the K. Ed. In the colophons only *parvan* and *adhyāya* are seen generally.

The last folio contains an index of all parvans from Sabhā onwards.

32. No. 6927 begins with 2.1.6 after the benediction *om namaḥ śrī paramātmāne* and extends up to the end of Sabhā 2.103.39. Devanāgarī characters; Old Indian paper—12" × 5½"; Folios—120; Lines—9–10; Letters—36–46; Date—Samvat 1656 (A. D. 1599).

The Ms. is in tolerably good condition even though it is very old. The white colour of the paper has faded to a considerable degree. Folio 70 and 71 are missing. The writing is of average legibility and neatness. The Ms. is amplified by a later writer. (See Folios 13, 14 and 120 etc.). Spelling mistakes are also seen corrected. Red pigment is applied over the colophons. This pigment is also used to mark the end of every hemistich. The folios are numbered. The colophons generally make mention of parvan, upaparvan and the theme but only two of these are found at once in a colophon. (See colophons on Folios 120, 121, etc.).

After the colophon at the end of Sabhāparvan is seen written *Samvat 1656 varṣe proṣṭapati budhe likṣitam*.

From a note written by one who is different from the original copyist, at the end of the Ms. the following facts can be gathered. 1. The Ms. was copied by Haribhai. 2. at Ahamadabad, 3. at the instance of Vanavāli vaiṣṇava.

33. No. 7085 begins with Sabhā 2.1.6 after the benediction *Nārāyaṇam namaskṛitya* etc. and ends with 2.103.39 the last verse in Sabhā

Devanāgarī characters ; Old Indian Paper—14¼" × 7¼" ; Folios—72 ; Lines 13-16 ; Letters—46.

The Ms. is fairly old but is in good condition. The writing is of a fixed style and letters are tolerably legible. Red ink is used to mark the end of hemistiches and to write the colophons. The verses are also numbered. The original scribe himself has written certain verses which he has left out in the Ms., on the margin. (See Folios 3^b, 25^a, etc.) On Folio 6^a is seen an elucidatory note on verses 2.5.24-25 and on 6^b is seen a similar note on 2.5.41. Two verses form the Viṣṇupurāṇa which are connected with 2.11.32. in the Mahābhārata are quoted on the top of the folio 13^a. These notes are written by the same hand. On the margin of every folio the name of the parvan (Sabhā) is given. The folios are numbered. The Ms. contains 74 chapters parallel to 103 in K. Ed. The colophons are not uniform. They give sporadically *parvan*, *upaparvan*, *upākṣhāṇa*, and name and number of *adhyāya*.

34. No. 10137-B begins with 2.1.6. after the benedictory verse *Nārāyaṇam namaskṛtya* etc., and runs up to the end of Sabhā (2.103.39 ; Devanāgarī characters ; Indian paper—15½" × 6¾" ; Folios—131 ; Lines 11 ; Letters—48 for the text and 64 for the commentary.

The Ms. is in good condition. Yellow pigment is applied to some of the folios. Red ink is used to mark the end of hemistiches. Writing is legible and is of uniform style. On the left margin are seen *bhā sabhā* and *saṭi* and on the right margin are seen Rama and Heramba sporadically. The folios are numbered. The verses are also numbered.

There are 80 chapters. The colophons do not contain the number of the chapter but it is given in numerals after the colophons.

At the end is written the first verse in Vanaparvan. This is followed by a subject index pertaining to Sabhā.

SABHĀ PARVAN (INCOMPLETE MSS.)

35. No. 8665 begins with 2.1.2. without any benedictory passage and contains the whole of Sabhā but for the two chapters at the end (up to 2.101.67). Telugu characters ; 17½" × 1½" ; Folios—160 ; Lines—6 ; Letters—65.

This is an old and a slightly worn out Ms. Some folios are a bit worm-eaten. The writing is tolerably neat and legible. The end of every *adhyāya*

is marked by a cross like diagram on the right hand side margin. The Ms. contains 115 *adhyāyas* complete (See Colophon on fol. 160^v) and a few verses from the next. Parallel to 115 chapters in this Ms. the K. Ed. has only 101 chapters. The verses eight in number on fol. 160^b which belong to chapter 116, are not found in the K. Ed. Generally *parvan* and *adhyāya* are only mentioned in colophons.

The Ms. looks old.

36. No. 6928 begins with (Sabhā) 2.1.6. after the benedictory passage *śrī Gaṇapatye namah* and the verse *Nārāyaṇam namaskṛtya* etc., and ends with 2.27.14^c. Devanāgarī characters; Indian paper—12½" × 5½"; Folios—64; Lines—8-9; Letters—32.

This looks a very old Ms. but it is not much damaged. Writing is bold and clear. Colophons are made distinct by the application of red pigments; It is also used to illuminate fragments like *Vaiśaṃpāyana uvāca*. The folios are numbered. There is no marginal writing of any kind. The colophons mention the *parvan* and the theme, but not the chapter.

37. No. L. 898 begins with 2.1.2 after "hari śrī" etc. and extends up to 2.14.21^a. Malayalam characters; Palm leaf—15½" × 1¼". Folios—17; Lines—10; Letters—60.

The Ms. is neither very old nor damaged to any tangible extent. The lower part of the left margin of the folios is worn out, but the writing is not at all obliterated. The writing is very good. The letters are small but very neat and of uniform size. There is practically no correction in the Ms. Marginal space is left blank. The folios are not numbered. There are 14 chapters complete and a portion of the 15th chapter parallel to 2.1.1.—2.14.21. (Chapter incomplete) in the K. Ed. The colophons mention only the *parvan* and chapter.

The codex also contain some Mss. of Kathakali works i.e. literary texts for the famous Kerala Kathakali dance.

38. No. 1237 begins with 2.5.109^b and extends up to 2.103.18. Malayalam characters; Palm leaf—21" × 1½"; Folios—176; Lines—6; Letters—56.

The Ms. looks very old. The borders are much worn out and a few folios are broken. Writing is clear but not attractive. Scratches and corrections do not disfigure the Ms. The folios are numbered by

akṣaras ; but the number is visible only on a few folios for the margin of many of the folios is worn out. According to this Ms. Sabhā has 115 chapters, parallel to which the K. Ed. has only 103 chapters. In Ādi the Malayalam Mss. have less number of chapters but in Sabhā they have more chapters than those in K. Ed. Colophons sporadically give *parvan*, *upa-parvan*, name and number of *adhyāya*.

The Ms. seems to be old.

39. No. 380-B begins with 2.35.19 and extends up to 2.95.18^{ab} ; Malayalam characters ; Palm leaf—16½" × 2" ; Folios—51 ; Lines—7 ; Letters—48.

The Ms. is a very old one and is considerably damaged. The borders of all the folios are very much worn out and there is not a single folio that retains its original rectangular shape. All the folios have become brittle. Some of them are broken. The hole through which the string passes has got widened in the case of all the folios. So, this is a well thumbed Ms. The writing is shabby and not uniform but it is tolerably legible. The folios were originally numbered by *akṣaras*. The number is partially seen on a few folios. The Ms. contains 107 *adhyāyas* (See colophon*saptāśatatamo adhyāyaḥ* fol. 51). Corresponding to these 107 chapters, the K. Ed. has only 95 chapters. The colophons usually give *upaparvan* and *adhyāya* only. Occasionally it gives the name of the chapter. At the end there are two written folios. In these the last one contains some Mantra portions.

This Ms. is the last part of a codex ; the other part begin a Ms. of Bhāgavata Daśamaskandha. The codex may be very old—⁶⁹

⁶⁹. In the Travancore University Collection there are not less than 210 Mss. of the Mahābhārata which pertain to the remaining sixteen parvans.

PALÆOGRAPHICAL NOTES ON AN ANCIENT
PALM-LEAF MANUSCRIPT OF JAYATĪRTHA'S
PRAMEYA-DĪPIKĀ

By

Moreshwar G. Dikshit

In the Collection of Manuscripts preserved in the Museum of the Deccan College post-Graduate and Research Institute, Poona, there is one palm-leaf manuscript entitled the Prameya-Dīpikā, which has been deposited in the Institute on loan by Mr. H. G. BENERI, M.A., of Hāveri, a research student of the Institute. It is reported to have been acquired by him at Hāveri in the Dharwar District of the Bombay Presidency, along with several others now kept in the Institute.

The manuscript is written or engraved on palm-leaves and consists of 124 folios, all of which are fairly well preserved. Each folio measures about 18½" in length and 1½" in breadth. In the centre of each folio there are two small holes about 7" apart, through which a string passes and by which the manuscript can be tied into a bundle. It has two wooden boards on the outer sides slightly larger than the size of the folios. On the top of one of them are engraved the words "Gītā-Bhāṣya-Tīk(ā)" evidently to distinguish the manuscript from the other rest.

On an average there are six lines on each folio, very carefully engraved and each line contains about 52 words. The handwriting is very neat and there are very few mistakes, some of which have been corrected in the margin of the folios by indicative marks like the *Kāṇḍa-pada* and other signs. The manuscript is incomplete. Its text runs into eighteen adhyāyas but some portion in the beginning of it and towards the end is lost.

Prameya-Dīpikā represents a gloss on the well-known commentary on the Bhagvad-Gītā by Ānanda-Giri. Its author Jayatīrtha,

according to the colophon appearing at the end of each *adhyāya*,¹ was a pupil of Ānandgiri. The latter is better known to scholars as Madhvācārya, the founder of the Viśiṣṭhā-dvaita school of philosophy and is said to have flourished in 1200 A.D. His *Gītā-Bhāṣya* is very widely studied.

Aufrecht² records only one manuscript of *Prameya-Dīpikā*, but from the mention of this work in the descriptive Catalogue³ in the Government Oriental Manuscripts Library, Madras, it seems that this commentary is very well known in South India. A printed text of this work is available, published by the Gujarati Press of Bombay in 1935, which is edited by G. S. SADHALE along with ten other commentaries on the *Bhagavad-Gītā*.

The main object of this note is to study the palæographical changes noticed in palm-leaf manuscripts wherein it would be proved that some of them have to be attributed to the writing material used for them.

The script of a palm-leaf manuscript suffers on account of the delicate nature of the leaf itself and the limited space available for the letters to be engraved upon it. Though the palm-leaf had its own advantages in the absence of any better material, on account of the varying lengths in which it could be obtained, the breadth of the folio remained uniformly the same and thus put a limit to the number of lines on each folio. Some space from it had to be allotted to the central holes necessary for tying the manuscript in a bundle and even some more had to be provided so that the written text may not suffer by the widening of these

¹ The following colophons occur at the end of the respective *Adhyāyas*:

(a) इति श्रीमदानन्दतीर्थ भगवत्पादाचार्यविरचिते श्रीमद्भगवद्गीताभाष्यस्य टीकायां जयतीर्थ-
मुनिविरचितायां प्रमेयदीपिकायां द्वितीयाध्यायः—॥ श्री ॥—॥ (Folio 41A.)

(b) इति श्रीमदानन्दतीर्थ भगवत्पादाचार्यविरचिते श्रीमद्भगवद्गीताभाष्यस्य टीकायां जयतीर्थ-
मुनिविरचितायां प्रमेयदीपिकायां षोडशोऽध्यायः ॥—॥ श्रीकृष्णार्पणमस्तु ॥—॥ श्री ॥—
(Folio 101a.)

(c) अष्टादशोऽध्यायः ॥ श्रीकृष्णार्पणमस्तु ॥ श्रीलक्ष्मीनारायणाय नमः ॥
सर्ववियाध्रयं ज्ञानं कारणं विमलाहरं पुस्तकं संप्रवक्ष्यामि प्रीता भवतु भारती ॥ करकृत
अपराधः क्षंतुमर्हति संतः ॥ (Folio 124b.)

² *Catalogus Catalogorum*, I. p. 199.

³ Sastri, *An Alphabetical Index of Sanskrit Manuscripts in the Government Oriental Manuscripts Library, Madras*, part I, p. 467 foot-note.

holes by constant use. Besides, the nature of the leaf did not allow any ornamental or curvilinear forms of letters to be engraved on it, on account of the veins in the leaves. Many angular characters in the palm-leaf manuscript therefore appear to have a linear or straight form which effected some changes in the formation of the characters, which would have appeared in a different form had the writer used any other material than the simple leaf. This difficulty is particularly noted when more than one component words (Jodāksaras) had to be compressed within a limited space even if the exact value of the letters was already settled in the age in which the manuscript was written.

The pointed steel stylus with which the palm-leaf manuscripts were engraved does not seem to have helped the writer in any appreciable way to improve his mode of writing as it could only be used on the leaf in a certain direction, either upwards or downwards, and its use in any other way would have proved injurious to the leaf by damaging certain medial letters, either by scratching the leaf in an undesirable way or by tearing it off completely. Still from the minuteness of details occasionally noticed in manuscripts it is obvious that this kind of damage was less subjected when the leaves were still green and not tough as they become afterwards. There is reason to believe that the manuscripts were written on the leaf before they were sufficiently dried up.

After stating the difficulties encountered in the engraving of palm-leaf manuscript which by themselves are the reasons for the changes noticed in the palæography, we might now turn to the actual changes noticed in the manuscript under consideration.

The script of the manuscript is proto-Nāgari, and a glance at the palæographical chart appended herewith would show that it resembles the present day Nāgari in many respects. In spite of the apparent semblance we find that in it there are many letters which differ from the present day script and for the identification of some of them we have to exert a little to know their correct values.

The first important change that may be noticed in the formation of these is the shortening of the horizontal on the top of a letter where it meets the vertical. This difference we have to attribute to the use of stylus which had to be used without lifting it as far as possible. To the students of palæography it need hardly be emphasised that the horizontal

on the top of every letter in the present day Nāgari is merely a development or an outcome of the thick portion noticed in the earlier characters and caused by the turning of the hard instrument when applied to writing material like the stone or a copper-plate and in certain cases soft material like clay. In point of time it is more a development of the "Nail" in the so-called "Nail-headed" characters.

The second thing to be noted about the formation of the letters is the horizontalization of the curves in many letters, which, as will easily be recognized, is made for the sake of the manuscripts. This mode is particularly noticed in the medial U of the letter as well as in the R on the top. In writing the medial I, the writer resorts to a simple curve which at the same time serves both as the sign for *velānti* and for the additional vertical in the long or the short *akṣara*. This practice is also marked in cases of DA, LA, and even in BA where straight lines have been engraved in places of loops. The writer is really at pains when the distinguishing features of letters having a similar semblance like *DHA* and *THA*, *VA* and *CA* etc., where he had no other means than to treat the loops and the verticals as two different parts and to indicate them separately.

His ease in dealing with straight forms is apparent from the vertical of *KA*, which has one of its loops split into a right angle. His treatment of *HA* exhibits the same tendency to eliminate loops and their replacement by straight lines as far as possible.

A somewhat different mode has been adopted in the case of *PHA*, where we find that only *PA* has been carved with a curious ornamentation at the top to distinguish it from the first letter of the labial.

Coming to more special forms we have to note the instance of *JA*, *THA* and *DHA*, the ornamental *DHA* and *SA*.

The form of *JHA*, which does not materially differ from the characteristics of the same letter obtained in inscriptions of the 14th century A.D., is also to be noted. We might also refer to *NA* with a short ending as a curious specimen of caligraphy. The nasal *N* is always indicated by an *anuswāra* written after the letter, instead of at the top as in the present day Nāgari, apparently for the sake of convenience in engraving the leaf.

In the formation of compounded letters, the writer's difficulty is all the more great when it comes to putting more than three letters together. In the depiction of YA in a compound letter (*Joḍākṣara*) he uniformly straightened the loop into a straight line without the elimination of the vertical of the previous letter or letters. The tendency to simplify the clustered consonants is also seen in the letters being engraved in the order in which they are to be pronounced and by denoting their conjunct nature by a continuous curve carved on the tops of each of them. In the chart we have selected some words commonly noticed in the manuscripts and from their treatment it would be apparent that their identification would have been somewhat difficult had not the printed text been made available to us.

It would be needless to go into the details of each and every letter, but we might only draw the attention of the reader to the forms of *RJJA*, *CCHA*, *STHA* and *RKHA*, which have to be studied from the chart itself.

After studying these changes and how they were effected we now turn to the problem about the age of the manuscript and see how far the changes we have noted above would help us to determine the same.

Though we have ample testimony to show that palm-leaf was most commonly used as a medium of writing before paper came to be invented (as is apparent from the earlier paper manuscripts which have still retained a space indicated by a blank in imitation of the holes in palm-leaf manuscripts or by red dots specifying the same, as well as from the historical evidence noted by several writers), it must be admitted that the palæography of palm-leaf manuscripts has not helped us much in determining its exact age. The natural difficulty of writing material does not vanish even after studying these details and the changes as have been noted above. We have already seen that some of the changes in script were made obviously for the sake of palm-leaf on which they are engraved, and would not have perhaps appeared had the manuscript been written on paper.

Moreover, such a study of the characters obtained in palm-leaf manuscripts from the point of their palæography has never been made up to now on a considerable scale. BÜHLER in his *Indische Palæographie*, Taffel VI, included several specimens of characters from different

kinds of manuscripts obtained in India and abroad. PANDIT GAURISHANKAR OJHA⁴ also indicated the same from some of the manuscripts of the 16-17th century A.D. But in their citations the regional factor in the development of the script has not been stressed. From the examples cited there it cannot be ascertained whether the use of the script could have been restricted to any particular locality. This factor cannot be overlooked in view of the fact that even in paper manuscripts belonging to the same period, we notice some difference in script in one and the same locality. Thus we find different scripts⁵ employed in Jaina and non-Jaina manuscripts. The palæographical chart of letters obtained in one manuscript cannot therefore be a desideratum for the age of all other manuscripts in a particular locality and for the same period. Unless a detailed study of some of the most ancient and *dated* manuscripts is completed, as in the case of lithic and copper-plate documents from which a general and systematic evolution of the script has been traced by the epigraphists, it would not be possible to say with any certainty about the age of a manuscript from its script alone.

Till then the accompanying chart would serve only as an attempt in this direction, though the writer has hopes that it would be taken up seriously in places where such material has fortunately been preserved in greater abundance.

⁴ Ojha, *Prācina Bhāratiya Lipt-Mālā*, Lipipatra, 65.

⁵ Cf. H. R. Kapadia's articles in *ABORI*, 18.171-86; 19.386-418.

ॐ	अ	इ	उ	ए
क	ख	ग	घ	
च	ट	ड	ण	
त	थ	द	ध	
न	प	फ	ब	भ
म	य	र	ल	व
श	ष	स	ह	ळ
ॐ	ॐ	ॐ	ॐ	ॐ

KINSHIP TERMS AND THE FAMILY ORGANIZATION AS FOUND IN THE CRITICAL EDITION OF THE MAHĀBHĀRATA

By

I. KARVÉ

Introduction

Kinship terms for the following concepts are found in the critically edited part of the Mahābhārata.

Great-grand-father, grand-father, (separate terms for father's father and mother's father), father, son, grandson, (separate terms for son's son and daughter's son), great-grand-son, mother, daughter, grand-daughter (daughter's daughter), mother's brother, father's sister and mother's sister. For relations by marriage there are terms for husband, wife, co-wife, husband's brother, wife's brother, husband's father, wife's father, husband's mother, son's wife, daughter's husband. Besides these there are terms which denote the family or household, the concepts of relationship through father and relationship through marriage.

There are certain terms which may be termed the primary kinship terms like *pitṛ* (father), *mātṛ* (mother) etc. For certain relationships several terms are used, for example *putra*, *suta*, *sūnu*, *dāyāda*, *tanaya* and others for son, or *patnī*, *jāyā*, *dāra* for wife. It is not always possible to find out which of these many terms are literary expressions of the functions of that relationship and which are genuine kinship terms. In such cases, it would be extremely instructive to study Sanskrit texts of different periods and of different content in order to find out how different words are preferred in different contexts. A mere cursory glance will show how certain words very frequent in the Vedic texts (e.g. *sūnu*) are used but rarely in the epic, while certain others like *dāra* for wife are not found at all in the Vedas. The word *sūnu* is an old word and if it is found in the Vedas and but rarely in the epic it is a clue worth following. The two may be divided by time as also by cultural content in order to account for the change in the preferred vocabulary. The Vedas are the esoteric literature of the two higher castes while the epic is a popular record which is recited by

trained minstrels at different festive gatherings to which the common people were admitted as audience. The difference in words may be due to this fact. It is found today that the vocabulary used by different castes is slightly different. The vocabulary of the *māntra* (priestly) literature may be different, may be conservative and old, may have many echoes—even in later times of the old Indo-European-Iranian vocabulary while the *sautā* (from *sūta*, the story-teller) literature as representing a contact with an ever changing audience may represent a more popular vocabulary. A change in the fashion in words may have for its causes either the time factor or culture-content of different Sanskritic texts. It was, therefore, thought necessary, more from the point of view of further studies than for the exigencies of the present paper to prepare an index of kinship terms discussed in this paper and to give a word-count for the different terms.

The Hindu family or the Vedic family has been studied by many scholars both Indian and European. DELBRUCK and SCHRÄDER have even studied the kinship terms used but the point of view of this paper is different from that of these former studies. Firstly this paper deals with one text only and studies the kinship terms and usages as depicted in one narrative only. The necessity of a critically edited text is justified by the fact that within the so-edited text the terminology follows a perfectly logical pattern without exception while all the words which would have vitiated this pattern are found in texts which are rejected solely on the ground of manuscript evidence. (Thus the word *pitṛya* not discussed in this paper as not occurring in the critical text is found in the Kumbhakonam edition). This also leads us to the second point that Indian social institutions must not be studied in an eclectic way by gathering the evidence of the *Dharmāśāstras* but must be studied by compiling case histories of different kinship usages recorded in Brahmanic, Buddhist and Jaina literatures. These would reveal to us, as does this story of the epic, that the Indian social institutions have evolved in a world of constant and stimulating culture-contact where people of different cultures marry with each other, fight with each other and have to live as neighbours carrying on a struggle which may end in cultural assimilation or extermination. In the Mahābhārata story this cultural process is unrolled before our eyes in a vivid and gripping narration and the attention of a student of social process must be *primarily* fixed on these narratives and not on such abstract one-sided treatises as the *Dharma-śāstras*. The first part of the paper describes the kinship terms, the second, the kinship usages and the family organisation. References to other Sanskrit texts is avoided as it is necessary to complete some more

studies of this nature before comparative study of the diverse material can be undertaken.

PART I

GREAT-GRANDFATHER

The word *prapitāmaha* is used for the (a) great-grandfather (father's father's father), (b) his brother, (c) mother's grandfather (?), (d) ancestors in general and for (e) the creator as the ancestor of all the living beings.

Parīkṣid iti vikhyāto rājā kauravavamsābhṛt || 1.32.16.

yathā Pāṇḍuḥ . . . babbhūva mṛgayāśīlaḥ purasya prapitāmahaḥ || 1.32.17, see also 1.37.25

The famous king and noble scion of the Kuru Race by name Parīkṣit was fond of hunting as his great-grandfather Pāṇḍu before him.

bhagavan Kāmyakāt Pārtha gate ne *prapitāmaha* |

pāṇḍavāḥ kimakurvanta . . . || 3.79.1

(b) In the following context the word seems to have been used for the great-great-grandfather, or in a classificatory manner for the brother of the great-grandfather. Janamejaya is said to have ruled in the same manner as his *prapitāmaha* (great grandfather) before. Janamejaya's great-grand-father was Arjuna who was never a king. The word therefore may stand for Dharmarāja, the eldest brother of Arjuna. It may also have been used for the father of the great-grandfather, i.e. Pāṇḍu.

(Janamejayaḥ) śasāsa rājyaṁ kurupuṁga vāgrajaḥ | 1.40.7

yathāśya vīraḥ *prapitāmahas* tathā ||

'(Janamejaya) the foremost among Kuru heroes then ruled over his kingdom like his brave great-grandfather (Dharma Rāja or more likely Pāṇḍu) before him.'

(c) In the following the word may mean, either father's father's father or mother's father's father. Śeṣa, the great serpent, addresses Brahman as *prapitāmaha*, who is the father of Marīci, the father of Kaśyapa who is the father of Śeṣa. Śeṣa's mother Kadrū is the daughter of Prajāpati the son of Brahman and so Brahman becomes Śeṣa's mother's grandfather.

Śeṣa uvāca—eṣa eva vāro me'dya kāṅkṣitaḥ *prapitāmaha* || 1.32.17.

Śeṣa said, " Oh great-grand father, I desire only this boon".

(d) It is also used for any distant ancestor or for ancestors in general.

tathā (Janamejayaḥ) saṃpūjayitvā taṁ (Vyāsaṁ)

yatnena *prapitāmahaṁ* ||

1.54.15.

' (Janamejaya) did homage to his ancestor (Vyāsa). Vyāsa is the grand father of the great-grand father of Janamejaya. (Vyāsa-Pāṇḍu-Arjuna-Abhimanyu-Parīkṣit-Janamejaya).'

teṣāṁ apīdaṁ *prapitā* mahāntaṁ rājyaṁ pituṣcaiva kurūttamānām || 1.194.5.

' This kingdom belonged to their ancestors as also to their father, they who are the best of Kūrus.'

Here Bhīṣma wants to stress that the kingdom is the ancestral property of the Pāṇḍavas.

(e) In the following the word is applied to the creator.

sphītasya vṛṣṇivamśasya bhartā goptā ca Mādhabaḥ

trayāṇāṁ api lokānāṁ bhagavān *prapitāmahaḥ* ||

5.84.3

' Mādhaba is the sustainer and the protector of the prosperous Vṛṣṇi clan, he the Lord, the Creator (ancestor) also sustains and protects the three worlds.'

Brahman the creator is called *prapitāmaha* also. (cf. below under *pitāmaha*).

(f) The descriptive phrase father's grandfather—*pituḥ pitāmahas*—is also used in place of *prapitāmaha*.

tathaiva sarvadharmajñāḥ *pitūrmama pitāmahaḥ* |

Pratīpaḥ prthivīpālāḥ.... ||

5.147.4

Dhṛtarāṣṭra says to his son—" So also the king Pratīpa, learned in religious lore, the grandfather of my father (was famous etc.).

GRAND FATHER

The word *pitāmaha* is used for (a) the father's father, (b) the brother of the father's father, (c) mother's father (?), (d) for ancestors in general, and (e) for Brahman the Creator.

In the following examples Vyāsa and the king Vicitravīrya are both referred to as the father's father of the Pāṇḍavas. As is well known Vyāsa was the begetter of their father, while Vicitravīrya was the legal father (the mother's husband) of their father.

evam uktvā mahābhāṣaḥ Pāṇḍavānām pitāmahaḥ |
Pārthīn āmantrya Kuntīm ca prātiṣṭhata mahatpātḥ || 1.157.16.

'The noble grandfather of the Pāṇḍavas, having said so and taken leave of the Pārthas and of Kuntī, started.'

rājyaṁ tu Pāṇḍoridevaprādhr̥ṣyaṁ | tasyādya putrāḥ prabhavanti nānye |
rājyaṁ tad etan nikhilam Pāṇḍavānām | pitāmahaṁ putraputr̥nugmi || 5.146.32.

'This kingdom was Pāṇḍu's without a rival. His sons alone shall rule now and none others. This whole kingdom belongs to the Pāṇḍavas. It has descended to them from the grandfather, and is to be inherited by the sons and the grandsons.' (*pitāmaha* may mean ancestral also but in this verse it seems as if special reference is made to the fact that the two ascendant generations—the father and the grandfather—of the Pāṇḍavas were kings and they therefore had a right to the kingdom).

(b) Bhīṣma the half-brother of Vicitravīrya, the grandfather of the Pāṇḍavas and Dhārtarāṣṭras is also called the grandfather. As grandfather (uncle?) of these princes and as the oldest male member of the family he is referred to as grandfather by almost all the younger people [Dhṛṣṭadyumna (3.13.118) Karna (5.61.12,13), and Kṛṣṇa (5.71.11) belonging to the generation of the Pāṇḍavas.]

Bhīṣmaḥ pitāmaho rājā Viduro janani ca me |
suhṛjjanaś ca pr̥yo me nagare nīgasihvaye || 3.1.33

(Dharmarāja says), "Grandfather Bhīṣma, the king, Vidura, my mother and most of my friends are in the city of Hāstinapura."

bhavān Kṣattā ca rājā ca ācārya vā pitāmahaḥ |
mām eva parigarhante nānyaṁ kāmāna pūthivam || 5.125.4

"You, Kṣattā, the king, the preceptor, even the grandfather put the blame on me and on no other king," said Duryodhana.

(c) In the following the word is used for mother's father.

akṛkṣante ca dauhitṛn api nityam pitāmahaḥ |
tān svayam vai paritr̥ṣye rakṣanti jīvitaṁ pitub̥ || 1.147.6
MO-II Bk Y 62—9

The *pitāmahās* (father's fathers) always wish for grandchildren (born of their daughters. lit. daughter's children). In protecting the life of the father I am also saving the life of the grandchildren (who will be born of daughters to be born.)

This use is unique as another word exists for mother's father.

(d) In plural it is used for ancestors generally. Sometimes it is qualified by the word *pūrva*.

kim akurvanta kauravyā mama *pūrvapitāmāḥ* | 3.1.2

Janamejaya asks, "What did my ancient ancestors of the Kuru family?"

pitāmāḥ me varade Kāpīlena mahānadi |

nītā vaivasvataḥsayam || 3.107.16.

"O Great River, giver of boons, my ancestors were led to the abode of death by Kapila." (King Bhagīratha refers to the half-brothers of his great-grandfather).

aṭamāṇaḥ kadācit sa svān dadarśa *pitāmāṇān* |

lambamānān mahāgarte pādai rūrdhvair adhomukhaḥ || 1.13.11

(The sage Jaratkāru) once, while wandering, saw his ancestors hanging upside down in a huge pit.

(e) It is used to denote the creator Brahman or his son Prajāpati as the begetter of all living beings. Brahman is referred to mostly as *pitāmaha* (the grandfather): actually according to the genealogy he is the great grandfather of the gods (Brahman—Adīti—gods or Brahman Marīci—Kāyapa—gods) while Prajāpati, through whose daughters the world is generated is far removed from Manu, the father of mankind.

tato dadrśur āsinām saha devaiḥ *Pitāmahaṃ* | 1.203.3.

'They saw there Brahman (lit. the grandfather) seated with other gods.'

tebhyaḥ prācetaso jājñe Dakṣo Dakṣād imāḥ prajāḥ |

sambhūtāḥ puruṣavyāghra sa hi *lokapitāmahaḥ* || 1.70.4

From them was born Prācetasā Dakṣa, from Dakṣa, the living beings were born, O tiger among men, he therefore is the grandfather (ancestor), of all the peoples.'

Brahman is also called the ancestor of all beings, *sarva-loka-pitāmaha*.

tañ dadarśa svayam Brahmā sarvalokapitāmahaḥ | 1.6.5.

‘Brahmā himself, the ancestor of all beings, saw her.’

In the following verse Brahmā is called the *pitāmaha*, though he is the father of Bhṛgu, the husband of Pulomā. As such he should have been addressed as father or pitā, as the word used for Pulomā is *vadhū* i.e. daughter-in-law. *Pitāmaha*, thus, is used of Brahman in whatever context the word occurs.

sāntvayāmsa bhagavān vadhūm brahmā pitāmahaḥ | 1.6.6

‘God Brahmā, the grandfather soothed the young bride (daughter-in-law).’ The descent is as follows : Brahman—Bhṛgu × Pulomā, therefore, Pulomā, the *vadhū*, is Brahman’s daughter-in-law.

* * * * *

The word *mātāmaha* is used for mother’s father. The terms *mātus pitā*, *mātur janaka* and *mātus śarīra-kartā* are also used (5.174.17,20,24 ; 5.175.28).

Yayātir asmi Nahuṣasya putrah...mātāmaho’ham bhavatām prakṛśaḥ | 1.88.21

‘I am Yayāti, the son of Nāhuṣa, and reveal myself as your mother’s father.’

The word *pūrva* is used in plural to denote distant ancestors. The word *paurvikī* is used once to denote a distant ancestress.

na hi tṛpyāmi pūrvāṇāṃ śṛṇvānāś caritaṃ mahat | 1.56.3

I am never tired of hearing the great deeds of my ancestors.

evam āsān mahābhāgī Tapatī nama Paurvikī |

tava Vivasvatī Pārtha tīpatyas tvaṃ yayā mataḥ || 1.163.22

‘In this way was Tapatī, the daughter of Vivasvān, your great ancestress. From her are you called Tāpatya.’

The descriptive phrase *pitus pitā* (father’s father), is also found in a number of verses.

Balīḥ papraccha daityendraṃ Pralhādaiḥ pitaram pituḥ | 3.29.2

‘Bali asked his father’s father. Pralhāda, the king of Daityas.’

FATHER AND MANES (THE DEPARTED ANCESTORS).

The words *pitr*, *tāta*, *janitr*, *janayitr*, and *janaka* are used. Each word has its own peculiarities as described below.

The word *pitr* is used for (a) father, (b) father’s brother ; in the dual it means (c) parents and in the plural it is most often used to denote (d) the departed ancestors.

(a) In the following the word is used for the begetter, as also for the legal father, i.e. the husband of the mother.

āha m̐m amaraśreṣṭhaḥ *pitā* tava Śatakratuḥ |
Kuntisutam iha pr̐ptam paśyantu tridaśālayaḥ || 3.43.12

The greatest among gods, your father, Śatakratu (Indra), said to me “Let the dwellers of heaven see the son of Kurti, who has arrived here.” (Indra is the begetter of Arjuna, while his legal father is Pāṇḍu).

śaśvad dharm̐tmanā jāteḥ bāla eva *ṛita* mama |
jivitaṁtam amnuprāpraptaḥ k̐m̐tmaiveti naḥ śtutam || 1.110.3

‘My father even as a child had his mind bent on duty, but he came to his end with his soul wrapped up in desire.’ (Pāṇḍu refers here to king Vicitravīrya after whose death he was born to queen Ambālikā from the sage Vyāsa.)

(b) The word *pitr* is also used for father’s brother and is sometimes qualified in order to indicate whether the younger brother of the father was meant. It is thus used in a classificatory way.

hatam eva hi paśy̐mi g̐ṅgeyam *pitaram* r̐ṇe | 5.162.2.

I see my father, the son of Gaṅgā, as good as already dead on the battlefield. (Dhṛtarāṣṭra refers here to Bhīṣma, the half-brother of his father).

vy̐jah̐ra tato v̐kyam Viduraḥ satyaśaṅgarah̐ |
pitur vadanam anv̐keṣya parivṛtya ca dharmavit || 5.146.17.

Vidura, the truthful, learned in Dharma, looked at his father, and said these words.’ (by “father” is meant here Bhīṣma who was the uncle of

Dhṛtarāṣṭra, the half (?) brother of Vidura ; about Vidura's relationship cf. further p.)

sarvathā tvatṣamaṁ caidat rocate ca mam'agha |
yattvaṁ pitari Bhīṣme ca prapitṛtām sam_careḥ || 5.71.24

'It is just like you, and O, sinless one, I like it too that you pay your respects to the father (uncle Dhṛtarāṣṭra) and Bhīṣma.'

pitā yaviyān asmīkaṁ Kṣattā dharmabhṛtīm varaḥ | 5.145.13

Says Dharmarāja—'Our junior father, the Kṣattā, best among those who practice dharma.'

dadarśa pitaraṁ vṛddhaṁ prajñācakṣuṣaṁ īśvaram | 2.52.28.

He saw his father, the old blind king.

pitaraṁ samupātiṣṭhad Dhṛtarāṣṭraṁ kṛtāñjaliḥ | 2.64.17

'(Dharmarāja) waited on his father Dhṛtarāṣṭra, with folded hands.'

upasthitāṁ vṛddham amḍhaṁ pitaraṁ paśya bhūrata | 2.65.11.

"Oh Bhārata (Dharma) see me your old blind father " (said by Dhṛtarāṣṭra to Yudhiṣṭhira).

kṛtyakṛte upasthīsyat pitṛaṁ iti Ghaṭotkacāḥ |
āmantrya rākṣasaśreṣṭhaḥ prastathe cottarāṁ diśaṁ, || 1.143.37.

"I shall wait on the fathers (father and uncles together) in the time of need'. So saying and taking their leave Ghaṭotkaca went north."

dayito Vāsudevasya bilyat prabhṛti cābhavat. |
pitṛnām caiva sarveṣāṁ prajñāṁ iva candramāḥ || 1.13.63

'He (Abhimanyu, the son of Arjuna and Subhadrā) from his childhood was beloved of Vāsudeva and also of all his fathers (uncles and father) as moon is of people.'

yan mabravīt Dhṛtarāṣṭro niśīyān |
Ajātaśatro vacanaṁ pitā te 5.24.10 ||

'(Know) O Ajātaśatra what Dhṛtarāṣṭra your father (uncle) said to me in the evening.'

(c) tasya vyādhasya pitarau brāhmaṇaḥ saṁdadarśa ha | 3.204.8.

‘The Br̥hmaṇa saw the parents of the hunter.’

(d) In the plural though it may mean fathers, it is most often used to denote the departed ancestors. The god Yama, the god of the under-world is called the king of the *pitṛs* (*pitṛrājah* 3.281.14).

hanyurhi pītarah putrān putrāścāpi tathā pitṛn |

Fathers might kill the sons and sons the fathers.

sa teṣu rudhir mbhassu hradeṣu krodhamārcchitaḥ |
pitṛn samītarpay m'sa rudhirepeti naḥ śrutam || 1.2.5.

‘Overwhelmed with anger, he offered oblations of blood to the manes (his dead ancestors), at the tanks filled with blood.’

The word *tāta*¹ is used most often in the vocative singular case, and has become merely a mode of address to a man or men junior than the speaker. It is also used for seniors but rarely. (a) In this sense it has no kinship connotation. It is, however, sometimes used also in the sense of father where it may occur, (b) in the vocative, or (c) in any other case. (d) It is also used in a classificatory sense for the brother of the father and is qualified by the adjective *kaṇḡasa*.

(a) *bhṛguvamāśāt prabhṛty eva tvayā me kathitaṁ mahat*
ākhy nam akhilaṁ tāta saute prito'smi tena te || 1.53.27

(Śaunaka says to the story-teller), “You have narrated a great story starting from the genealogy of the Bhṛguṣ. Dear Sūta, I am pleased with you.”

(b) *te tāta yadi manyadhvaṁ utsavaṁ vāraṇāvate*
.....viharadhvaṁ yath marāḥ 1.85.21. ||

“If you care, live in happiness and festivity at Vāraṇāvata, like gods.” Dhṛtarāṣṭrā says this to Yudhiṣṭhira, using the word *tāta* collectively for all the brothers.

catvāri te tāta gṛhe vasantu | śriyābhijūṣasya gṛhasthadharme ||
vṛddho jñātir avasannaḥ kulīnaḥ | sakhā daridro bhaginī cīnapatyā || 5.33.59.

¹ *Tāta* is given as a lallwort by WALDE-POKORNY, *Vergleichendes Wörterbuch der, i.-g. Sprachen*, I, 704. It means “father” in many Indo-Germanic languages. A modified form *Telā* means aunt in the Irish. As it is only a lallwort, its original root-meaning cannot be fixed as “father”. It may have also from the very beginning two uses : (1) a definite connotation and (2) a mode of intimate address amongst members of the family-circle.

Vidura says to Dhṛtarāṣṭra his elder brother “*tāta*, let these four find shelter in your house, you who carry the duty of the householder, being blessed by riches. The four persons being an aged kinsmen, clansman, come to bad days, a poor friend and the childless sister.

(b and c) mā *tāta tāta tāteti* na te *tātō* mah-muṇiḥ | 1.169.7

“Do not call out *tāta*, *tāta tāta* because, this great sage is not your father.” (*tāta*).

(d) bhos *tāta* kanyasa vade dvayor nāstyā atra sambhavaḥ. | 1.98.13.

“O Junior father, I tell you two cannot be together here.”

(Address by Dīrghatamas to Bṛhaspatī, the younger brother of his father).

The words *janitr*, *janayitr* and *janaḥ* occur only once or twice.

bhṛy-yam janitam putram idar'e svam ivānam |
hl-date *janitā* prekṣya... || 1.68.48.

“The father rejoices at seeing a son like his own image in a mirror, born of his wife.”

teṣam *janayitū* n'nyas tvadīte bhuvi diḍyate | 1.92.51.

Nobody except you in this world is their begetter (father). The word here has the meaning of begetter, rather than of the kinship connotation “father”.

dhanyas te putra *janaḥ* devo bh-nur vibhāvasuḥ | 3.292.16

Son, blessed is your father, the god Sun.

aham te *janaka*s t'ta dharmo mṛdupar-kramaḥ | 3.298.6.

“Child of gentle ways I am your father Dharma.”

MOTHER.

The words *mātr*, *ambā*, *jananī*, *janitrī* and *chātrī* are found. The words *mātr* and *ambā* are used for own mother, as also for the step-mother. The word *mātr* is the most frequent of all these words. It is used in a classificatory sense in three instances, once for father's brother's wife, once for mother's sister and once for all women in the family of about the same age as the own mother.

Haḍimbeya *parīśrāntā* tava *mātr* 'parājītā | 3.145.4

‘O son of Hidimbā, your mother (Draupadī) is tired.’

aśrauṣam ahaṁ trustho garbha'āy-gatas tadā |

ār-vaṁ mātṛvargasya bhṛgūṇāṁ kṣatriyair vadhe || 1.171.5

‘At that time, placed in the thigh and still in the embryonal stage, I heard the lament of my mothers, while the Bhṛgus were being killed by the Kṣatriyas’. (Mothers here means the mother and her brothers-in-law’s wives and cousins-in-law’s wives).

sarvā mātṛs tathā prap̄vā kṛtvā caiva pradakṣiṇam....

prayayur vāraṇāvatam 1.133.4

‘After taking leave of all mothers (here aunts) making pradakṣiṇā to them they went to Vāraṇāvata.’ (As Kuntī accompanied the Pāṇḍavas to Vāraṇāvata, here “all mothers” means wives of father’s brothers and cousins.)

mātaram caiva Gāndhārī mām ca tvadgūṇakṣayā

upasthitaṁ vṛddham andhaṁ pīṭaram pa ya bh rata 2.65.11

‘O Bhārata prince see, I your old blind uncle (father) and your aunt (lit. mother) Gāndhārī have come to experience your virtues.’

ciraviproṣitaṁ mātā mām anujñ tum arhasi 3.66.17

Mother (aunt), please permit me to go as I have been away from home for a very long time. (Damayantī says this to her mother’s sister).

Ambā occurs but rarely, twice in the vocative case and once in the nominative.

evam caiva vadaty ambā..... | 1.187.22.

‘The mother also says so’.

nāmba Śantanunī j taḥ kauravaṁ vaṁ amudvahan |

pratijñ m vitath m kuryaṁ..... || 5.145.32.

‘O mother, I who am born of Śantanu, bearing the name of the Kauravas shall not falsify my solemn pledge’.

ahaṁ preṣyaś ca dīśaś ca tavāmba sutavatsale 5.145.33

‘I am your servant and slave, O mother, fond of sons.’

The word *dhātṛī* is used for the nurse, or an elderly woman attendant who functions as chaperon but in one place it is used definitely for mother.

anujñātī yayau sã tu kanyā Śalvapateḥ puram
vṛddhair dvijātibhir gupta *dhātṛyā* c nugatā tadā. 5.172.2.

‘Being permitted to do so, that maiden went to the city of Śālva. She was protected by elderly Brahmins and accompanied by an elderly lady as chaperon.’

teṣāṁ janayitā nṛṇyas tvadṛte bhuvi vidyate
madvidhā mānuṣī *dhātṛī* na caivāstīḥ kadācana 1.192.5

‘Their begetter (father) is nobody but you on this earth. And no mortal mother exists which can be compared with me.’

The words *jananī* is not very rare and occurs in every parvan. The word *janitrī* is rare.

tatropaviṣṭārcir ivānalasya teṣāṁ *janitrī* mama pratarkaḥ 1.185.7

‘Seated there, like the flame of the fire, was I think their mother.’

gurūṇāṁ caiva sarveṣāṁ *janitrī* paramo gurūḥ 1.186.16

Of all the elders deserving obedience, mother comes first.

FATHER’S BROTHER.

No special word for this relation is found in the critical edition, which is to be expected as everywhere the words for father, namely *pitr* and *tāta* are used for father’s brother. The word *pitr̥vya* occurs in the Kumbha-koṇam edition and the verse in which it occurs does not form part of the constituted text on the strength of documentary evidence only ; now its omission is justified on the strength of the kinship terminology and usages as found in the Mahābhārata.

MOTHER’S BOTHER.

The word *mātula* is everywhere used. The more homely word *māma* used in folktales like *Pañcatantra* is not found.

FATHER’S SISTER.

Father’s sister is *pitr̥vasī* or *pitus svasā*. Kuntī is often times addressed and mentioned as *pitr̥vasā* by Kṛṣṇa.

kā nu śimantini tvadṛg lokeṣv asti *pitr̥vasaḥ* 5.88.90.

“ O, aunt (sister of my father) where is a woman like you in the universe ?”

tato'pa'yat *svasārām* pr'tim'n *pituh* 2.12.29.

He visited with joy the sister of his father.

MOTHER'S SISTER.

The same words as for mother is used once (cf. above). There is also the descriptive term *mātr̥śvasā* or *mātur bhaginī*.

bāḍham ity eva t'm uktvā hṛṣṭā *mātr̥śvasā* nṛpa....prasth'payāmīsa 3.66.20.

The rejoicing aunt (mother's sister) said, “ so be it,” and sent her home.

prapamyā *mātur bhaginīm* idam vacanam abravāt 3.66.15

‘ Bowing down to the aunt (mother's sister), she said these words’.

BROTHER.

The same word *bhrātṛ* is used for brother, father's brother's son, sometimes for father's sister's son, mother's brother's son and also once for great-grandfather's brother's grandson. Thus the word *bhrātṛ* is used in a classificatory sense for various relatives. The other words in use are *sodarya* and *sahodara*. These two words (born of the same mother) are used sometimes as an adjective of the word *bhrātṛ* to distinguish own brothers from step-brothers. They are used collectively of all Pāṇḍava brothers though they are not born of the same mother ; the three elder brothers being step-brothers of the two youngest.

nityēnuṣaktavairā hi *bhrātārāḥ*(?) bhr'taro devad'navāḥ 5.98.18.

‘The brothers, (step-brothers) Devas and Dānavas, are always hating each other.’

bhrātārāḥ pūrva-jātās ca susamiddhās ca sarva'āḥ
nikṛtyā nirjitaḥ devair asurib' p'ṇ'avaṛṣabha 3.34.58.

‘O Pāṇḍava-brave, the gods conquered by cunning the Asuras who were the brothers (step-brothers), born before them and possessed of wealth.’

yathaiḥ pītṛto Bh'ṣmas tathī tvamapi m'ṛtāḥ
bhrātā Vicitrav'ryasya.... 1.99.30.

'Satyavatī says to Vyās, the son born to her as a maiden, " Just as Bhīṣma is the brother of Vicitravīrya from the father's side, so you are his brother from the mother's side ".'

*bhr̥tṛbhuḥ saha Kaunteya nibodhedhem vaco māmā
punar vo vighraho mī bhūt khṇḍavaprasthām āvīta* 1.99.24.

' Son of Kuntī listen to my words. May you not again quarrel with your brothers (cousins). Live in Khāṇḍavaprastha.'

Arjuna uvāca—utsrjātām Citrasena *bhr̥tās* mātkaṁ Suyodhanaḥ 3.

Arjuna said " O Citrasena, please set at liberty our brother (father's brother's son) Suyodhana ".

bhr̥tṛbhis te' stu saubhr̥tram.... 2.65.15

'May you keep brotherly relations with your brothers.'

(Said by Dhṛtarāṣṭra to Dharma. The brothers referred to here are the cousins the sons of Dhṛtarāṣṭra).

*arhattamaḥ kuruṣu Saumadattiḥ sa no bhr̥tā
Saṁjaya mataskhī ca* 5.30.21

'The best among the Kurus is Saumadatti, O, Saṁjaya : he is our brother and my friend.' (Dharmarāja refers to Saumadatti as a brother of the Pāṇḍavas. Saumadatti is the son's son of Bālīka the brother of Śantanu. He thus belongs to the generation of Pāṇḍu and ought to have been classed with Dharma's father. In age Dharma and Saumadatti may have been about the same. This usage of the word *bhr̥tṛ* is curious.)

Kṛṣṇa who is the son of the mother's brother is also called brother of the Pāṇḍavas.

sa te bhr̥tā sakhī caiva katha madya Dhanamjayaḥ 5.88.33

Kuntī asks Kṛṣṇa—" How far is Dhanamjaya, who is your brother and friend ? "

bhr̥tā c'isi sakhī c'isi Bibhatsor mama ca priyaḥ 5.70.91

Dharma says to Kṛṣṇa—" You are the brother and friend of Bibhatsu and of me."

katham samabhavaddyutam bhr̥tṛṇām tanmāhītyam 2.46.1.

How did the game of chance played among brothers proceed ?

Dhṛtarāṣṭra uvāca....tulya-bhijanavṛyaś ca katham iha.ātuh īriyam nṛpa putra kāmayaś
mohat 2.50.3.

Dhṛtarāṣṭra said " my princely son, how can you covet the wealth of your brother (Dharmarāja), you who are equal to him in birth and valour ?

evamuktās tataḥ sarve bhrātaro vipulaujaśaḥ

Vārṣṇeyah pāṇḍaveyau ca pratasthūr mādgham puram 2.1821.

Addressed thus, the brave brothers—the two Pāṇḍavas and the one Vārṣṇeya started for the city of Magadha. (The Pāṇḍavas are Arjuna and Bhīma and the Vārṣṇeya is Kṛṣṇa, and they are mentioned here together as brothers.)

In the Āraṇyaka Parvan Saubhupati Śālva calls Śiśupāla, the king of Cedi his brother. No direct relationship exists between these two. Śiśupāla is the son of the sister of Kṛṣṇa's father and is related to Kṛṣṇa in the same way as the Pāṇḍavas are related to him. In fact Śālva in one verse calls Śiśupāla a brother of Kṛṣṇa and in the next calls him his own brother. From some stanzas in the Sabhā Parvan it appears that Śālva was a subclan of the bigger and numerous clan of Bhojas who had fled from the North to the West for fear of Jarāsandha. The Bhojas, the Andhakas and the Vṛṣṇis are again subclans who trace agnatic relation with one another being divisions of the great Yadu clan. There one who is a brother of one member of any of these clans is also a brother of any member of the other two clans. Thus Śālva may have called Śiśupāla his brother.

udīcyabhojās ca tathā kulānya śṛṇvāśābhībho

Jarāsandhabhayād eva pratiśm diśam āritāḥ 2.13.18.

Śūrasenāḥ Bhadrakārāḥ Bodhāḥ Śālavāḥ Paṭaccarāḥ

Susthārās ca Sukutās ca Kuṇḍināḥ Kuntibhiḥ saha 2.13.19

The eighteen families of the northern Bhojas have taken shelter in the West for fear of Jarāsandha. They are Śūrasena, Bhadrakāra, Bodha, Śālva, Paṭaccara, Susthara, Sukutṭa, Kuṇḍina and Kuntī. 2.13.19

Nine families are here mentioned of these Śūrasena and Kuntī are known to belong to Bhoja-Vṛṣṇi-Andhaka complex. Kuntī is Śūrasena-sutā Vasudeva the father of Kṛṣṇa is called Śāuri and the king Kuntibhoja is

the adoptive father of Kuntī the mother of Pāṇḍavas. As the first and the last belong to the Bhojas the presumption is that the other clans mentioned are also those of Bhojas.

bhrātā blāś ca rājī ca na ca saṁgr̥mamūrdhani |
pramattaś ca hato v̥ras taṁ haniṣye Janārdanam || 3.15.21.

“ I shall kill Janārdana who has killed not in battle, the brave king (Siśupāla) who was intoxicated, who was but a boy and who was a brother ”. (Here the word brother may refer to the relationship between Kṛṣṇa and Siśupāla but in the next verse the relationship of brother is with Sālva, the speaker).

mame p̥pasvabhāvenu *bhrātā* yena nipātitaḥ |
Siśupālaḥ . . . taṁ vadhiṣye || 3.15.13.

“ I shall kill the evil one who has killed my brother Siśupāla ”.

pat̥ṣvaseyūya sa tāmananapatyūya v̥ryavān . . . pradadau Kuntibhojya || 1.104.23.

The warrior (Vasudeva) gave her to the childless Kuntibhoja, the son of his father's sister.

sodarā mama sarvehi *bhrātaraḥ* mandacetasaḥ |
saha tair notasahe vastum tadbhavān anumanyatām || 1.32.8

“ All my uterine brothers are fools. I do not wish to live with them. Please permit me to follow my wish. (The word *sōdarya* is here used as an adjective.) ”

kekayaś ca naravyāghrīḥ *sodarāḥ* pañca p̥rthivīḥ | 5.19.25.

“ The five brave kings, the Kekaya brothers. (Sodarya used as a noun.) ”

bhavān agre rathodaraḥ saha sarvaiḥ *sahodaraḥ* bhṛtṛbhūḥ || 5.162.19.

“ First of all are you, with your uterine brothers, proficient in chariot-fighting. (*Sahodara* is used as an adjective). ”

ajātaśatruḥ apy adya Bhīm̐rjunavaśanugaḥ |
nikṛtaś ca mayā p̥rvaṁ saha sarvaiḥ *sahodaraḥ* || 5.150.11

Even Ajātaśatru follows the will of Bhīma and Arjuna. And formerly I have wronged him and his brothers (*sahodara* is used here as a noun).

In one place the word *bandhu* seems to be used in the sense of "brother".

upapanno guṇaiḥ śreṣṭhaḥ jyeṣṭhaḥ śreṣṭhaeṣu *bandhu*su |

ūtaputreti m.śabda P.rthastvamaśi v.ryav.n || 5.143.12.

MOTHER'S SISTER'S SON.

The word does not occur in the Mbh.

FATHER'S BROTHER'S SON.

It is the same as for brother and he is always addressed and referred to as *bhrātr*.

MOTHER'S BROTHER'S SON.

He is referred to also as *bhrātr*, as was Kṛṣṇa by the Pāṇḍavas.

SISTER.

The words *svasṛ* and *bhaginī* are used. The word *sodaryā* is used as an adjective only and never as a substantive as in the case of the words *sodara* and *sahodara*.

sodaryām p.jayāmśa *svasṛā*ni pannagottamaḥ | 1.44.15

"The best among snakes paid homage to his uterine sister."

FATHER'S BROTHER'S DAUGHTER.

FATHER'S SISTER'S DAUGHTER.

MOTHER'S BROTHER'S DAUGHTER.

MOTHER'S SISTER'S DAUGHTER.

No word occurs for these relatives in the critically edited text so far except for mother's sister's daughter who is called *mātrsvaseya*.

mama *mātrsvaseyā* tvam m tā D.kṣ.yaṇi mama | 3.213.20.

"You are the daughter of my mother's sister because my mother is also a daughter of Dakṣa."

Many words are used for descendants in general without any reference either to the generation or to the sex of the descendant. These are *santāna*, *prajā*, *prasava*, *santati*, *prasūti* and *apatya*.

The words *santati* and *santāna* are often times used not in the sense of "a child" primarily but in the sense "unbroken continuity" of a clan. As this continuity is secured through a child, which in turn begets offsprings, so it has come to mean offspring.

tayorutp̄dayīpatyaṁ sa' īānāyā kulasya naḥ | 1.97.10.

"Beget offspring from the two for the *continuity* of our race.

santānasyāvināśā a k maye bhadram astu te |

anapatyataikaputratvaṁ ity' hur dharmav' dinaḥ || 1.94.59.

"I wish for the preservation of the *continuity* (of our race). May you prosper. Wise people say that having but one child is equivalent to being childless."

Sāntasya jajñe saṁtānaṁ tasm' d ās't sa Saṁtanuḥ | 1.92.18.

"A child was born to the peaceful king therefore was he Saṁtanu."

mamīnapatyāḥ pṛthivīpatīḥ pītā bhavet pītuh putras'ataṁ mamaurasāṁ |

kulasya saṁtānakaram ca yad bhavet... || 3.281.37.

My father, the king is childless. May he have a hundred sons of his own—sons which will help keep the *continuity of the line*."

vad āgamava' itḥ purīṣas tadapatyaṁ oraj yate |

tat tīrayati saṁtatya p'rvadretān pītāmahān || 1.68.37.

'That offspring which is born to a man, knowing traditional lore, that saves the ancestors who have died before its birth, by keeping the *continuity of the line*.'

tvayi m'itar vinaśṭāy'm na naḥ syāt kulasaṁtataiḥ | 1.221.12.

'O mother, when you perish, there will be no *continuity of our clan*.'

tapo v' py athavā yajño yac c'nyat p'vanam mahat |

tat sarvaṁ na samam t. ta saṁtatyeti sat m matam || 1.41.28.

'According to wise men penance, sacrifice and whatever else is deemed as sacred is nothing compared to offspring.'

tad d ragrahaṇe yatnaṁ saṁtatyaṁ ca manaḥ kuru || 1.13.22.

'There try to get a wife and think of getting progeny. *Prajā*, *prasava* and *prasūti* mean that which is born and stand for offspring or descendants in general. *Prajā* also means all the living beings together.

ta ime prasavasy' rthe tava lokīḥ sam vṛtāḥ |

prajīyasva tato lok. n upabhoktāsi śāśvatān || 1.220.13.

“These worlds (heavens) are forbidden to you because of children (for lack of children). Beget children and then you can enjoy eternal heavens.”

tvat *prasūtiḥ* priyā prāptā na mām-tapsyaty ajivitam || 1.146.32.

“I have got (given birth to) these dear offspring of yours. Now loss of life will not grieve me.”

Mariceḥ Ka'yapaḥ putraḥ Kaśyapāt tu imāḥ *prajāḥ* |
prajāñjire mahābhṛgā Dakṣakanyās trayoda'a || 1.146.32.

“Kaśyapa was the son of Marīci. From him the thirteen noble daughters of Dakṣa gave birth to all the living beings.”

Apatya stands for a child. The words *anapatya* (childless), *anapatyatā* occur often to describe the most undesired thing on this earth—the condition of being childless.

sā tvaṁ m'drīm plaveneva tīrayemām anindite |
apatyasaṁvibhāgena parām kīrtim avāpnuhi || 1.115.14.

‘Save Mādrī as with a boat, O faultless one, by sharing the children with her and thus obtain fame.’

sarvam evīnapatyasya na pīvanam ihocyate 1.111.24.

‘Everything belonging to a childless person is said to be unblest.’

SON.

The following words are used for a son :

putra, *putraḥ*, *sūta*, *ātmaja*, *tanaya*, *sūnu*, *nandana*, *dāyāda*, *dāraḥ*, and *kumāra*. Of these the words *putra* and *suta* are used most.

The word *putra* is used

(1) for one's own sons. Among these are to be counted (a) one's own son, (b) a son born of one's wife by somebody else during one's life-time, (c) a son born to one's wife after the death of the husband (d) a son born to one's wife while she was yet a maiden at her father's house, and (e) a son born to a daughter who is pledged as *putrika* to perpetuate the father's line.

- (2) brother's son. (3) In dual it is employed for a son and daughter.
(4) for any person of a descending generation.

(1a) yaṁ putram aṣṭamam rājāṁstvam purā mayyajāyithāḥ |
sa te'yaṁ puruṣavyāghra nayasvainam grhēntikam || 1.94.31.

'O, king, tiger among men ! this is the eighth son, whom you had through me. Take him home with you.'

(1b) manniyogāt sukeśānte dvijātes tapasādhikāt |
putrān guṇasamāyuktān utpādayitum arhasi |
tvaktṛte'haṁ prthuṣroṇi gaccheyāṁ putrāṇām gatim || 1.113.30.

"At my command you should give birth to virtuous son through the agency of some Brahmin, who has practised penance. By this your action I shall gain the blessedness of having children (of being the father of sons)."

(1c) bhrātuh putrān pradāsyāmi mitravaruṇayoḥ samān |
vratam caretīm te devyau nirdiṣāṁ iha yan mayā || 1.99.38.

'I shall give to my brother sons like Mitra and Varuṇa. Let the two queens practice the observances as told by me.' (Vyāsa promises to give birth to sons through the widows of Vicitravīrya. They are Pāṇḍu and Dhṛtarāṣṭra who thus become the sons of Vicitravīrya.)

so'si Karṇa tathā jātāḥ Pāṇḍoḥ putro'si dharmatāḥ || 5.138.9.

'Thus are you, Karṇa, according to custom the son of Pāṇḍu (Karṇa was born to Kuntī in her maidenhood).

tasyāṁ ajanayat putram rājānam Babhruvāhanam |
tām dīṣṭvā Pāṇḍavo rājāṁ gokarṇam abhito'gamat || 1.209.24.

'He gave birth through her to a son named Babhruvāhana for the king. After seeing him the Pāṇḍava went towards Gokarṇa' (Babhruvāhana was taken up as the son by his mother's father the king of Maṇalapurā.)

(2) Throughout the critical edition the word *putra* is used for brother's son also.

kiṁ nāma vakṣaty avan'pradhānāḥ pitṛn samāgamaya paratra pāṇāḥ |
putreṣu samyak caritāṁ mayeti putrān apāpān avareṇya rājāt || 3.119.10.

'What will king (Dhṛtarāṣṭra) say to his ancestors when he goes to heaven ? Can he, after depriving his innocent sons of their kingdom,

say that he has behaved impartially towards his sons ? (The innocent sons are the Pāṇḍavas, the brother's children of king Dhṛtarāṣṭra).

asamśayam te'pi mamaiva *putrāḥ* Duryodhanas tu mama dehāt prasūtāḥ |
svain vai deham parahetos tyajeti ko nu brūyāt samatāmanvavekṣan || 3.5.18.

Dhṛtarāṣṭra says : " Doubtless, those (the Pāṇḍavas) are also my son's ; but Duryodhana is born of my own body. How can one, who lays claim to balanced judgment, demand that one should sacrifice one's own body for the sake of others ?

nābhinandimi te rājan vyavasāyam imam prabho |
putrair bhedo yathā na syād dyūtahetos tathā kuru || 2.45.52.

' I do not like what you are doing, O king, my master. Act in such a way that your sons (sons and nephews) do not fall out on account of the place of dice.'

Kṣattaḥ *putreṣu putrair* me kalaho na bhaviṣyati || 2.45.53.

O Kṣatta ! my sons (sons and nephews) shall not quarrel among themselves.

iṣṭo hi *putrasya* pitā sahaiva |
tadasmī kartā Vidurāttha māim yathā || 2.52.15.

The father is always adored of the son. Therefore I shall do as you, O, Vidura, have told me. (Vidura is mentioned as father by Dharma, their relation is that of a man and his brother's son).

Prēmr̥dya pararāṣṭraṇi kṛtārtham punarāgatam
putram ūsādya Bhīṣmas tu haṣād aśrūṇy avarīyat || 1.105.26.

' Bhīṣma shed tears when he got back the son who had defeated the enemies, and achieved his intentions.' (Here Pāṇḍu is mentioned as the son of Bhīṣma).

The word *suta* is used also in all the senses (1a) and (1b) as the word *putra*. (2) In dual the word connotes a son and a daughter and (3) at one place it is used in the general sense of descendant without reference to any particular generation, and (4) for a brother's son.

(1a) so'rjunena parēmṣṭaḥ paryadevayatārtavat |
bahulam kṛpaṇam caiva Virātasya *sutas* tadā || 4.36.38

The son of Virāṭa when seized by Arjuna wailed long and pitiously.

(1b) evaṃ Pāṇḍoḥ sutōḥ pañca devadattmahābalāḥ |
sambhūtāḥ kīrtimantas te kuruvamśavivardhanāḥ || 1.115.25.

‘ Thus were born the five powerful sons of Pāṇḍu, given to him by the gods. These sons earned glory and extended the family of Kurus.’

(2) anujānīhi mēn ārya sutaṃ me parirakṣa ca || 1.146.23.

‘ Give me leave my husband, and protect my son and daughter ’
(or, two children).

(3) Akūrāḥ Kṛtavarmā ca Sātyakiśca Sineḥ sutaḥ | 2.4.27.

‘ Akūrā, Kṛtavarmā and Sātyaki, the child of Śinī (Sātyaki is the grandchild of Śinī).

(3) ihaiva putrau nikṣipya Nalaṣya priyadarśinau gatas tato vathāḥkēmonī.....3

‘ Depositing the two comely children (son and daughter) of Nala here, he went away where he pleased.’

(4) The word *putra* is used as a term of address to any person of a descendant generation whether that person happens to be a son or a grandson. Thus used it means any descendant.

na viśeṣo’sti me putra tvayi teṣu ca pāṭhivā | 5.145.39.

Bhīṣma says to Duryodhana, “ son, I do not prefer one to the other between you and they (the Pāṇḍavas).

nātapatatapasāḥ putra prēpnuvanti mahat sukham | 3.245.12.

Vyāsa says to Dharmarāja, his grandson, “ Son, nobody, who has not undergone penance can get happiness.

(4) katham nu satyaḥ śucirāryavṛttāḥ jyeṣṭhāḥ sutēnām mama Dharmarājāḥ |

Ajātātruh prthivītalasthāḥ sete.... || 3.225.9.

‘ How can my eldest son Dharmarāja, the truthful, the holy, the noble, and without enemies sleep on ground? (Dhr̥ṣṭarāṣṭra speaks of Dharma as the eldest among his sons.) The word *putraḥ* is a diminutive form of *putra* and is used as a term of address to the own son or grandson to any young person. Thus we find the *putra* and *suta*, the two words

most commonly used for son are used in a classificatory sense. The dual of the word *tanaya* is used to denote son and daughter together.

sameśyasi ca dāraṁ tvam mā sma éoke manah kṛthāh |
rājyena *tanayābhyām* ca..... || 3.63.21.

You will be united with your wife and two children (son and daughter) and get back your kingdom, do not give over your mind to grief. (The form *tanayābhyām* can also be from *tanayā* the feminine of *tanaya* but all the other words used in dual for son and daughter like *sutau*, *dāraḥau* are in masculine and so this form may also be a masculine.

Duryodhana kutomūlām bhṛśam ārto'si *putraḥa* | 3.45.6

Dhṛtarāṣṭra says to Duryodhana, "Duryodhana, my child, what is the reason of this excessive sadness?"

vad vakṣyasi mahābaho tatkarīṣyēmi *putraḥa* | 3.23.23.

Bhāgadatta being defeated by Arjuna says to him :

O son (child) with powerful arms, I shall do as you bid me.

alābhena tathāśvasya paritapyāmi *putraḥa* || 3.106.18.

'O son (grandson), I am also troubled at not getting back the horse' (Sagara addresses his grandson Amśumān as *puiraka*—little son.)

sāhyam kuruta *putrakāh* | 1.70.35.

'O my sons give me help' (Yayāti addresses all his sons).

The word *Ātmaja* is used for (1) son, for (2) son and daughter and for descendant in general.

llinam janayāmāsa Kālindyaṁ tam surātmajam || 1.90.28.

"Tamsu begot his son llinā by Kālindī."

tau vihīnau mayā bālau tvayā caiva mamātmajau |
vinaśyētām na samdehaḥ..... || 1.146.20.

"These, our young son and daughter (two children)" will certainly die if they are left without you and me."

sa tathā satkṛtaḥ sarvair Bhoja Vṛṣṇyandhakatmajaiḥ | 1.210.19.

“ He was thus honoured by all the sons (descendants of the clans of Bhoja Vṛṣṇi and Andhaka.”

The words *sūnu* and *tanaya* occur much less frequently than the above words. They are found to mean own son.

na vārasām na rāmāpām nāpām sparśas tathā sukhah |
śiśorālīngyamānasya sparśah sūnor yathā sukhah || 1.68.55.

The touch of clothes of women and of waters is not as pleasant as the embrace of an infant son.”

śaśāpa tānapi kruddho Yayātis tanayān atha | 5.147.11.

‘ Yayāti being enraged cursed even those sons.’

The word *nandana* meaning “ one who gives joy ” is used in this (1) original sense as also in the sense of (2) son and (3) descendant in general.

apaśyad ajitah saṁkhye maṇim pratimukhāgatam |
śaktim nāma mahābhāgam Vasiṣṭhakulanandanam |
jyeṣṭha putrasatāt putram Vasiṣṭhasya mahātmanah || 1.166.4

“ The (king) unconquered in battle, saw coming in opposite direction the sage, called Śakti, the eldest of Vasiṣṭha’s hundred sons and the joy of the race of Vasiṣṭhas.”

(2) dadarśa kanyās tās caiva Bhīṣmah Śāntanurindanaḥ || 1.96.5

Bhīṣma, the son of Śāntanu, saw those maidens.

tasmims tathā vartamāne kurudāsārhanandanau |
samipe jagmatuḥ kimcid uddeśam sumanoharam || 1.214.26.

“ The two sons of the races of Kuru and Dāsārha (Arjuna and Kṛṣṇa went to a certain beautiful spot.”

The word *dāyāda*, which in Smṛti literature is used for those descendants, who have a share in the father’s estate is used in the epic, purely as a synonym of words like *putra*, *tanaya* and *sūnu* meaning a son and (2) also rarely in its meaning of inheritor. *Dāyāda*, that which is inherited, also occurs.

ayam sa puruṣavyēghraḥ punar āyāti dharmavit |
yo naḥ svān iva dāyādān dharmeṇa perirakṣati || 1.199.17

“ Here comes back again, the tiger among men, and known of dharma. He will now protect us like his own sons.”

draṣṭum hi Pāṇḍudāyādāms tvarante kuravo bhṛṣam | 1.198.21

“ The people of Kuru are hastening to see the sons of Pāṇḍu.”

In genealogical narratives we find the word *dāyāda* used simply as a synonym of putra.

Śasādaśya tu dāyādah Kakutstho nāma vīryavān | 3.193.2.

“ Śasāda's son was the famous Kakustha.”

Śrāvastasya tu dāyādo Brhadaśvo mahābalaḥ | 3.193.4.

“ The son of Śrāvasta was the powerful Brhadaśva.”

apareṇāgnidāyadas tāmracūdam bhujena saḥ |

mahākāyam upāśliṣṭam kukkuṭam balinām varaḥ |

gr̥hītvā vyanadat || 3.214.23.

“ That son of Agni, with his other hand held a huge, red-crested, crow and shouted.”

dāyādam matsyarājasya kule jātām manasvinam |

katham tvām ninditam karma kārayeyam nṛpātmanja || 5.38.13.

“ O son of a king, you are the son of the king of Matsya, born of a noble family and proud. How can I make you do something which is despicable ?”

kanīyān mama dāyādo jarā yena dhṛtā mama | 1.80.20.

The younger one who has borne my old age is my heir.

ime vai bandhudāyādāḥ saṭ putra dharmadarśane |

śadevābandhudāyādāḥ putrāms tān sṛṇu me pṛthe || 1.111.27.

According to our law books these six sons are *bandhudāyāda*. There are other six (kinds of) sons which are not *bandhu-dāyāda*. (In this verse sons who are *dāyāda* are set against sons who are not *dāyāda*. For detailed discussion on this see part 2nd of this paper. pp. 123-148)

eṣa Pāṇḍor' dāyādyaṁ yadi prēpnoti Pāṇḍavaḥ |

tasya putro dhr̥uṣam prāptaḥ tasya tasyeti cāparṣḥ || 1.129.15.

“ If the Pāṇḍava (Dharma) gets this inheritance from Pāṇḍu, then his son and after him his son will surely get it.”

sa rājā tasya te putrāḥ pitur *dāyādyahāriṇaḥ* |
mā tāta kalaham kārṣiḥ rājyasyārdham pradiyatām || 5.145.37.

“ He was the king. These are his sons, and as such entitled to the inheritance. Son : do not seek a quarrel. Give them half of this kingdom.”

Dāraka means a child or a son. In dual it may mean the son and daughter.

anveṣyāmiha bhartāram aham pretavaśam gatam |
uttiṣṭha tvam viśṛjyainam imān rakṣasva *dārakān* || 1.116.24.

I shall follow the departed husband, leave him, get up and take care of these sons.

mama jñātiṣu niksīpya *dārakau* syandanam tathā |
aśvāmś cenmān vethā kāmam vasa vā nyatra gaccha vā || 3.57.18.

“ Deposit these two children (the son and the daughter) at my father's house. Deposit also the chariot and the horses there and then and stay there or go elsewhere according to your pleasure.”

The word *kumāra* is used for a son or a child, but connotes “ boy ” rather than son.

idaṁ jitam idaṁ labdham iti śrutvā parājitaṁ |
dyūtakāle mahārāja smayase sma *kumāravat* || 5.3.5,10.

“ When you heard the words, ‘ this is won ’, this is obtained ” and knew them to be defeated at the time of the dice-play you laughed like a boy.”

tataḥ samabhavat Droṇaḥ *kumāras* tasya dhimataḥ || 1.54.5

“ Then was born Droṇa his son.”

teṣāṁ *kumārāḥ* sarveṣāṁ pūrveṣāṁ mama jajñire ||
kanyā tu mam jāteyam.... || 1.207.20.

“ To all my ancestors were born sons (boys). But to me was born this daughter (girl).”

BROTHER'S SON (MAN SPEAKING)

The words *putra* and *suta* are used. See above.

BROTHER'S SÖN (WOMAN SPEAKING).

No special term is found. Kṛṣṇa is Kuntī's brother's son, but he is not addressed by any kinship term.

SISTER'S SON (MAN SPEAKING).

Two words *bhāgineya* and *svasrīya* are used. They are used every where with reference to a man's sisters' son.

taiś cāpy uktaḥ *bhāgineyaḥ* prasannaiḥ.... !

īpsitam sarvaśas te kartāraḥ sma pravaṇā *bhāgineya* || 1.53.21.

(The Nāgas say to Āstika the son of their sister Jaratkāru). "The nephew was spoken to by them. O nephew : (sister's son) we shall do what you please."

Abhimanyuḥ Subhadrāyām Arjunadābhyajīyata

svasrīyo Vāsudevasya..... || 1.57.100.

"Abhimanyu, the nephew of Vāsudeva, was born of Subhadrā to Arjuna."

Kṛpāḥ Śāradvataś caiva yata ete trayas tataḥ |

Droṇam ca *bhāgineyaṁ* ca na sa tyakṣyati karhicit || 1.130.17

"Kṛpa, the son of Śāradvata will side with these three. He is never likely to leave Droṇa and his nephew."

vadhvaḥ putrā *bhāgineyā* bhaginyo |

dauhitrā kvacid apy avyalikāḥ || 5.23.14.

"The daughters-in-law, the sons, the nephews (sister's son) the sisters and daughter's son—are they all in good health "

bhāgineyān nijānś tyaktvā Salyas te rathasattamaḥ |

eṣa yotsyati.... || 5.162.27.

"Leaving his own sister's son, the great chariot-fighter Śalya will fight (with you)."

*bhāgineya*krte vīraḥ sa kariṣyati samāgare |

sumahatkarma.... || 5.119.1.

"He (Puruji, the son of Kuntibhoja and brother of Kuntī) the hero will do great deeds in the battle for the sake of his nephews (sister's sons)."

tathā Bhīmīrjunau hr̥ṣṭau *svasrīyau* ca yamīv ubhāu
āsane copaviṣṭas tu Śalyaḥ Pārtham uvāca ha 5.8.18.

"Ehīma and Arjuna and the twin nephews were glad. Then Śalya taking a seat spoke thus to Pārtha."

adahad Dvārakīm eva *svasrīyaḥ* san narādhipāḥ 2.42.7

"O kings ! he though a sister's son burned the city of Dvārakā. (Kṛṣṇa is peaking of Śisupāla)."

In Aranyaka 132.3,4 and 20 the son of Uddālaka and the son of Kahoda are referred to as *mātula*, *bhāgineyau* (uncle and nephew—"mother's brother " and sister's son)."

Thus all references to a sister's son with the words *svasrīya* and *bhāgineya* are to a man's sister's son. No reference occurs for a woman's sister's son.

DAUGHTER.

For daughter the following words are used :

duhitṛ, *sutā*, *tanayā*, *ātmaṃjā*, *ḥanyā*, *ḥanyakā*, *putrī*, *putrikā* and *kumārī*, *tanūṃjā* and *nandinī*.

The words *duhitṛ*, *sutā*, *tanayā*, *ātmaṃjā*, *putrī* and *tanūṃjā* are used always to denote daughter. The word *putrī* is sometimes used in vocative as a mode of address for the daughter-in-law by the mother-in-law or the father-in-law. While *putrikā* has most often a special meaning. The words *ḥanyā*, *ḥanyakā* and *kumārī* are used generally for a girl and sometimes are used as a kinship term meaning daughter. *Duhitṛ* is very often used and means daughter. It is never used in a general sense meaning a girl. *Duhitṛtva* means daughter-hood.

svargaśrīḥ Pāṇḍavārthīya samutpannā mahāmakhe
seha taptvā tapo ghoram *duhitṛtvaṃ* tavāgatā 1.189.49.

"The Svargaśrī was generated for the Pāṇḍavas, from the great sacrifice. That Svargaśrī has obtained your daughter-hood after undergoing difficult penance."

, *Sutā* is used for daughter. It is found compounded with the name of a country or a people to denote the princess of that country. *Draupadī* is mentioned as *Pāncāla-sutā* i. e. the daughter of the country of *Pāncāla* (5.191.3) and *Ambā* is mentioned as *Kāśi-sutā* i. e. the princess of *Kāśi*. The word *ātmajā* is also used for daughter. The words *tanayā* and *tanūjā* are used but rarely. The word *putrī* occurs in compound as *Rāja-putrī* meaning king's daughter (1.200.15) or *guru-putrī* meaning the daughter of the preceptor (1.72.7,17). It is used uncompounded extremely rarely in this sense e. g. *Analāyāḥ Śukī putī* 1.60.66 'Śukī is the daughter of *Analā*.'

In the vocative it is used also as a term of address for the daughter-in-law.

Śukra uvāca—Bṛhaspateḥ sutāḥ *putrī* Kacaḥ pretagatīm gataḥ 1.71.35.

Sukra said, "O daughter : Kaca the son-of *Bṛhaspati* is dead.

vyathitām mām ca saṁprekṣya pitṛvarṇsam ca piḍitam |
Bhīṣmo buddhimadān me'dya dharmasya ca vivṛddhaye ||
sā ca buddhis-tavādhinā *putrī* jñātām mayati ha || 1.99.46,47.

'Seeing my sorrow and seeing the plight of the race of his father *Bhīṣma* has given me counsel in order to maintain dharma. O daughter-in-law (*putrī*) the success of the advice rests with you. (Said by *Satyavati* to *Ambikā*)."

jīva *putrī* sutas te'yaṁ Dharmaputro Yudhiṣṭhirah |
sarvān....praśāsiṣyati || 1.144.13.

"May you live (long) daughter-in-law (*putrī*) this son of yours *Yudhiṣṭhira*, born of *Dharma* will rule all." (Said by *Vyāsa* to *Kuntī*).

putrī kasyaiṣa sāṅgasya vedasyādhyayanāsvnah || 1.167.13.

'Daughter(in-law) whose is this voice repeating all the *Vedas*? (Said by *Vasiṣṭha* to *Adṛṣyantī* also 1.168.1).

The word *putrikā* is most often used in a very technical sense and denotes a daughter who is destined to give over her son as an heir to her father. An only daughter is very often given in marriage to a man on his promising that he gives the first male offspring or all children of the union as heirs to his father-in-law, in which case it is supposed to

bear the name of his maternal grand-father. In the *Āraṇyaka Parvan* however at three places in the same *adhyāya* the word *putrikā* is used simply for girl or daughter.

tāḥ sarvās tv anavadyāṅgyaḥ kanyāḥ kamalalocanāḥ |
putrikāḥ sthāpayāmāsa naṣṭaputraḥ prajāpatiḥ || 1.60.11.

“All those daughters of faultless beauty and of lotus like eyes were established as *putrikās* by the *prajāpati* who sons had perished.” (See also 1.2.209).

Citrāṅgadā, the daughter of the king of *Maṇalarpura*, was a *putrikā* daughter as her son from *Arjuna* inherited her father's kingdom.

This concept of *putrikā* —daughters and the actual examples of such a practice in the epic raise a number of interesting questions from the point of view of the study of social institutions and culture contact. These are discussed in detail in part II of this paper.

The word *putrikā* is used simply to mean daughter in the *Āraṇyaka Parvan*, and used once for grand-daughter as a mode of address where it is comparable to the diminutive *putrakā*.

Bṛhaspateś Cāndramasī bhāryābhūd yā yaśasvinī |
 agnīṁ sājanayat puṇyān śaḍekāṁ cāpi *putrikāṁ* 3.209.1

“Bṛhaspati's wife was the illustrious *Cāndramasī*. She gave birth to six holy fires and one daughter.”

Bharatas tu sutas tasya Bharaty ekā ca *putrikā* 3.209.7

“Bharata was the son and *Bharatī* was the only daughter.”

Krodhasya tu rasa jāñe manyatī cātha *putrikā* 3.209.22

To *Krodha* was born *Rasa* and daughter *Manyatī*.

As sons are mentioned in all these passages *putrikā* is simply a synonym for *putrī* and cannot have any special meaning.

mā gāḥ pitṛgrham bhadre mātus te janako hyaham 5.174.20
 duḥkham chetsyāmi te'ham vai mayi vartasva *putrikā* 5.174.21

“Do not go to your father's house; I am your mother's father. I shall remove all your sorrow. Be advised by me, little one.

The word *Kanyā* means generally (1) a maiden—an unmarried virgin girl, (2) a daughter or a girl, and (3) is used as a girl or a kinship term.

sa dadarśa tadā *kaṇyāṁ* dāśānām devarūpiṇim
tām aprcchat....*kasya* tvam asi kā cāsi.... || 1.94.43.
sābravīt *kaṇyā'smi*.... || 1.94.44.

"He saw the beautiful daughter of the fisherfolk. He asked her, "whose art thou? Who art thou?" She said, "I am a maiden." (This reply is to the question, whose art thou? When she says she is a maiden (*kaṇyā*), she says that she does not belong to anyone i. e. is still to be married.)

athāpaśyat *kaṇyāṁ*.... 3:190.10.
tām abraṇīd rājā *kasyasi* subhage | tvam
sā prtyuvāca *kaṇyā* smiti |
tām rājovāca arthī tvayāham iti | 14.

He then saw a girl. The king asked, "auspicious one! whose art thou?" She replied, "I am a maiden". The king said to her "I desire you".

In the same way *kaṇyātva* and *kaṇyābhava* mean maidenhood or virginity just as *kaṇyā* means a virgin.

kaṇyāto dūṣite cāpi katham śakṣey dvijottama |
gantum grhaṁ.... || 1.57.62.
....ṛṣisattamaḥ uvāca matpiriyam kṛtvā *kaṇyātva* tvam bhaviṣyasi || 1.57.63.

O best among brahmins! how can I go home with my virginity lost? The sage replied, "You shall become (remain) a virgin even after yielding to my wishes." (The reference is to Satyavatī and Parāśara).²

(2) *Kanyā* is used simply to mean a girl or a daughter without any emphasis on maidenhood.

(b) *kaṇyāpitṛ*tvat kimcit tu vakṣyāmi bharatarṣabha |
balavat sapatnatām atra doṣam paśyāmi kevalam || 1.94.74.

²This curious idea of coitus without loss of virginity appears at other places in the critical text: Kuntī and Savitrī (Sun) when Kuntī gives birth to Karṇa without loss of virginity. Draupadī also during the period of marriage to the five brothers one after the other became as a virgin at the end of each day. (1.190.14)

"O, bull among the Bharatas, I being the father of the girl wish to speak something to you. In this arrangement the only drawback I see is that of rivalry with step-brothers."

In the Udyoga Parvan Dharma sends his love to all the daughters living in Hastināpura. Here the word *kanyā* is used as a kinship term, the other loving messages being given to sons, daughters-in-law etc. As there is no record of the Pāṇḍavas having any daughters, *kanyā* is used here in a classificatory sense and refers to all the girls born of the Kaurava brothers. Dharma also mentions the husbands of these *kanyās*. So in this context *kanyā* does not mean a virgin but simply a daughter of the great Kaurava clan of which the Pāṇḍavas were members.

kanyāḥ svajethāḥ sadaneṣu Saṁjaya |
anāmayāṁ madvacanena prṣtvā
kalyāṇā vaḥ santu patayo'nukūlā |
yūyaṁ patināṁ bhavatānukūlāḥ || 5.30.35.

"Embrace the daughters and enquire after their health, O Śaṁjaya, on my behalf. May they be agreeable and auspicious to their husbands and may their husbands be good to them."

...me *kanyām svakanyā* the mohīd yācitavān asi || 5.190.22.

"You asked the hand of my daughter for your daughter through folly."

katham Śikhāṇḍi Gāṅgeya *kanyā* bhūtvā...puruṣo'bhavadyudhi || 5.189.1.

"Son of Ganges ! how was it that Śikhāṇḍī who was born as a girl became a man in battle."

There are also compound words like Drupada-kanyā, *Pannageśvara-kanya* where the word *kanyā* is used as a kinship term to mean daughter and they mean e.g. Drupada's daughter, the daughter of the king of the snakes etc.

The word *kanyaḥ* means the same as *kanyā* but is used rarely. It means a girl or a daughter.

mātuḥ kulāṁ pītṛkulāṁ yatra caiva pradiyate |
 kulatrayaṁ saṁśayitaṁ kurute *kanyaḥ* satām || 5.95.16.

"A daughter brings into disrepute her father's house, her mother's house and also the family into which she is given as a bride."

The word *kumārī* is used for (a) a young virgin, (b) for a girl or a daughter without reference to age or virginity.

dhruvaṁ na rocet bharataṣabhasya |
patiḥ *kumārī*ṇā iva ṣaṣṭivarṣaḥ || 3.6.15.

“Surely this (good advice) is not liked by the king of the Bharatas just as a husband sixty years old is not liked by a young virgin.”

aham āsādītā rājan *kumārī* pitur āsrīme || 1.68.70.

Sakuntala says, “O king, I an inexperienced maiden was found by you at my father’s cottage.

utpādya putrān anṇānś ca kṛtvā
vṛttim ca tebhyo’nuvidhāya kāmicit |
sthāne *kumārī*ḥ pratipādya sarvā |
araypasamstho munivād bubhūset || 5.37.35.

After giving birth to sons, finding some means of livelihood for them, after marrying off the daughters to proper husbands then may one like an ascetic take up residence in forest.

kumārīkāṇām śilena vakṣyāmy aham arimdaṇam | 1.94.82.

“I am speaking this from the anxiety felt by a girl’s parents—as the father of a daughter.”

The word *nandini* (the joy-giver) is used twice as a term of address for a daughter in the *Āraṇyaka Parvan*.

jānāmi praṇidhānam te bālyāt prabhṛti *nandini* || 3.287.19.

“O daughter (*nandini*), I know . . . from your childhood”

evam etat tvayā bhadre kartavyam aśaṅkayā |
maddhitārthaṁ kulārthaṁ ca tathātmārthaṁ ca *nandini* || 3.288.11.

“You should do this without any fear for my sake, for the good of the family and for your own good, O daughter !”

DAUGHTER OF BROTHER OR SISTER.

For brother’s daughter and sister’s daughter no words are found in the text. Sister’s daughter is called by a woman the descriptive term *bhaginyā duhitā* at one place.

bhaginyā duhitā me’si piplunānena sūcitā || 3.66.12

The queen-mother of Cedī says to Damayantī—"You are revealed by this birth mark, as my sister's daughter."

SON'S SON..

The son's son is called *pautra* and *naptr*, the descriptive word *putraja* (born of the son) is also used. The word *pautra* is also used in a classificatory sense to include brother's son's son. Expression in which the words *putra* and *pautra* and *naptr* come together or are coupled in a compound occur very often.

Sātyakī is often referred to as Śinī's grandson e.g.

Śiner *naptr* 3.19.19.

Śineḥ *pautram* 5.118.20.

putrapautrān paśūmś caiva vetsyase 3.78.13.

"You will be in possession of sons, grandsons and cattle."

na me putro bhaved idṛk kāmam *pautro* bhavediti 3.115.27.

"Let not my son be like this, let my grandson be so."

rājyam tad etan nikhilam Pāṇḍavānām pitāmahaṁ *putrapautrāṇuṣṇmi* 1.46.32.

"This whole kingdom belongs to the Pāṇḍavas. It has come down from the ancestors and is inherited in the direct male line from the son to the grandson."

sa tvaṁ kuru tathā tāta svamatena pitāmaha

yathā jīvanti te *pautrāḥ* prītimantaḥ parasparam 5.31.10.

"O grandfather (grand-uncle) act in your own wisdom in such a way that your grandsons will live amicably with one another." (This is said by Dharma to Bhīṣma and the grandsons are grandnephews as the Dhārtarāṣṭras and Pāṇḍavas were the sons of the sons of the brother of Bhīṣma.)

ye caivānye kurumukhyā yuvānaḥ putrāḥ *pautrā* bhrātaraś caiva ye naḥ :

yatiḥ yam eṣām yena yenābhigaccher anāmayaṁ madvacanena vācyaḥ || 5.30.22.

"And all those others, chief among the younger Kurus, those who are our sons, grandsons and brothers, each one of them you should convey greetings from me." (Dharmarāja is giving messages of friendship to all the members of the kingly house of Hastināpura. The sons,

grandsons and brothers referred to here are, the nephews (cousin's children) their sons and cousins respectively).

SON'S DAUGHTER.

The word *pautrī* (son's daughter) is not found in the Critical Edition.

Dauhitrēyam mama Vibho Kāśīrājasutā priyā 5.175 .15.

DAUGHTER'S SON AND DAUGHTER.

For the daughter's son and daughter, the words *dauhitra* and *dauhitri* are used.

Airāvatakule jātah Sumukho nāma Nāgarāṭ

Āryakasya matah pautro dauhitro Vāmanasya ca | 5.101.23.

“ This Sumukha, a king of the Nāgas, the son's son of Āryaka and the daughter's son of Vāmana.”

“ This is my dear grand-daughter (= daughter's daughter), the daughter of the King of Kāśī.

Terminology for Kinship by Marriage

FATHER'S BROTHER'S WIFE.

She is called *mātr*, or mother (see page 61). For the following relations no terms have occurred so far in the Mbh. (in the first five Parvans).

FATHER'S SISTER'S HUSBAND, MOTHER'S SISTER'S HUSBAND, MOTHER'S BROTHER'S WIFE, WIFE'S SISTER, HUSBAND'S SISTER, SISTER'S HUSBAND, HUSBAND'S BROTHER'S WIFE, BROTHER'S WIFE (woman speaking).

FATHER-IN-LAW.

For father-in-law the terms used are *śvaśura* and *ārya*. These terms are applied not only to husband's father but to the brother of the husband's father and generally to all men whom the husband calls father and grandfather. Thus it is used in a classificatory way and includes all men of the husband's clan who are one generation or more

generations older than the husband. The same word is used also for the wife's father. In the dual form the word *śvaśura* means father-and-mother-in-law.

sarvakāmakriyābhiś ca sarveṣāṁ tuṣṭim āvahat |
śvaśrūṁ śarīrasatkāraiḥ sarvair ācchēdanādibhiḥ |
śvaśurāṁ devakāryaiś ca vācaḥ samyamanaena ca || 3.279.23.

“ By pleasing behaviour she satisfied all—she pleased the mother-in-law by attending to her bodily needs like clothing etc. She pleased the father-in-law by doing her duties towards the gods and by keeping a control on her speech.”

tena satyena tāv adya dhriyētām śvaśurau mama || 3.281.97

“ I swear by this that my parents-in-law will be prosperous and living.”

Duḥśāsanah pratilomyēn ninēya sabhām adhye śvaśurāṇām ca Kṛṣṇam 5.29.33.

“ Against all rules of propriety Duḥśāsana brought Kṛṣṇa in the assembly where her fathers-in-law were present.” (Kṛṣṇa's—Draupadī's—father-in-law was dead long before her marriage. The people referred to as fathers-in-law here are the brothers of her husbands' father i. e. Dhṛtarāṣṭra and Vidura and other elderly members of the Kuru clan).

yatrābravīt sūtaputraḥ sabhēyām Kṛṣṇam sthitām śvaśurāṇām samipe || 5.29.36.

“ Where the son of the charioteer said to Kṛṣṇa, who was standing near her fathers-in-law.”

sāham pitrā ca nikṛtā śvaśuraiś ca paramtapa | 5.88.63.

“ Such am I, wronged by my father and by my fathers-in-law ” (Kuntī is here referring to Bhīṣma, the brother of her father-in-law, to other elderly Kuru men).

tato bhivādayamāsa prayataḥ śvaśurām Nalāḥ || 3.76.2.

“ Nala then humbly bowed to his wife's father.”

āryas tv eṣa pitā tasya pitus tava mahātmanah || 1.169.8.

“ The honoured gentleman (here is the father of your father ” (ārya here means the “ honoured one ” and the elderly persons in the family are now and then referred to in this manner.)

bālām mām āryakas tubhyaṁ kṛṇantiṁ kanduhasakām |
adadāt kuntibhojāya.... | 5.88.71.

The honoured one (here the own father is referred to in this way by Kuntī) gave me, who was but a child, playing with you with a ball, to Kuntibhoja.

MOTHER-IN-LAW.

Śvaśrū and *āryā* are the words used for the mother-in-law by a woman. In the text so far published the word is not used for the husband's uncle's wife or for the wife's mother.

ye ca dharmā kuṣumbheṣu śvaśrū me kathitāḥ purā....
tān sarvānanuvartāmi || 3.222.32.

“ I follow all the rules of behaviour (traditions) of this family, which were told me formerly by my mother-in-law.”

nityam āryām ahaṁ kuntīm.... |
svayam paricarāmy ekām snānācchēdanabhojanaiḥ || 3.333.38.

“ Always do I wait personally on Kuntī, the honoured one, with respect to things concerning her bath, clothes and meals.”

purāḥ suptānupīdhākṣid bālakān vāraṇāvate |
śayānān āryayā sārddham.... || 3.13.78.

“ Again, did he burn the children sleeping by the side of the honoured one at the city of Vāraṇāvata.” (Draupadī while speaking about her mother-in-law generally uses the term *āryā*).

HUSBAND.

The terms for husband are *pati*, *bhartr*, *nātha* and *vara*. First three terms are used also in the sense of lord and master without any kinship connotation.

pañca te patayaḥ śreṣṭhā bhaviṣyanti || 1.189.44.

“ You shall get five excellent husbands.”

mahatām caiva bhūtānām sarveṣāṁ iha yaḥ patiḥ |
bhagavān sa mahātejā.....pāvakaḥ || 3.212.3.

“ He who is the master and lord of all great forces is the luminous lord Pāvaka.”

Also in innumerable expressions like *nadanadīpati* (3.267.35) (The lord of rivers, great and small), *Kurūṇām pati* (3.173.20 The lord of the Kurus), *prajānām pati* (Lord of the living) etc. 1.1.31.

The word has no kinship connotation.

The expression *patiloka* occurs a few times with slightly different meanings each time.

putralokāt *patilokān* vṛṇvānā satyavādinī |
priyān putrān parityajya Pāṇḍavān anvapadyata || 5.88.43.

“The truthful one choosing to share the fate of her husbands (*patiloka*) rather than that of her sons, left her beloved sons and has followed the Pāṇḍavas.”

yatkṛte duḥkhasvatim imīm prāptā'smi śāśvatīm |
patilokād vihinā ca naiva strī na pumān iha || 5.186.4.

“Through him (Bhīṣma) have I reached this eternally pitiable state. I am deprived of wifehood (deprived of the condition of having a husband) I am neither man nor maid.”

sā gatā saha tenaiva *patilokam* anuvratā |
tasyās tasya ca yat kṛyam kriyati tad anantaram || 1.177.29.

“She has followed her husband in death, their death ceremonies may be performed soon.”

bhartṛ also means husband and lord or master. The expression *bhartṛloka* parallel to *patiloka* also occurs.

īpsitās ca guṇaḥ strīṇāṃ ekasyā bahu *bhartṛā* |
taṃ ca prāptavati Kṛṣṇā na sē bhedayituṃ sukham || 1.194.8.

“Women covet the condition of being the one wife of many husbands. Kṛṣṇā has obtained it and so it is not easy to create disaffection in her mind.”

vajrasya *bhartā* bhuvanasya goptā || 1.3.151.

“The holder ($< \sqrt{bhṛ}$ to hold) of the thunderbolt, the protector of the world.”

Yudhiṣṭhira rājaputro mahātmā.... |
sa kauravasyāsya janasya *bhartā* || 5.147.31.

“Yudhiṣṭhira the great prince is the master and protector of the Kuru people.”

prāṇidhēyendriyagrāmam *bhartṛloka*parīyape |
tyaktakēmasukhe hy āvār tapyāvo vipulam tapah || 1.110.27.
MO-II Bk Y 62—11a

The word *nātha* is used less frequently and only rarely does it have a purely kinship connotation meaning husband. In its negative form *anātha* it occurs oftener and invariably means "one without protection". In the following stanza there is a play on these two senses of the word *nātha*.

nādhya-gacchat tadā *nātha*ṁ kṛṣṇā *nātha*vatī satī || 5.88.86 and 5.135.18.

"At that time Kṛṣṇā though possessed of *nāthas* (husbands), possessed no *nātha* (protector)."

Pāṇḍavānām bhavān *nātho* bhavantaṁ cāśritā vaya, || 2.18.9.

"You are the protector of Pāṇḍavas and we are your dependents."

The word *vara* is used in the sense of bridegroom or suitor.

yauvanasthūṁ tu tām dṛṣṭvā svām sutām devarūpiṇīm |
ayācyamānām ca *varaiḥ* nṛpatir duḥkhito' bhavat || 3.277.17.

"Seeing that his daughter of heavenly beauty had reached youth without being sought by suitors, the king became sad."

diṣṭasya granthir anivartaniyaḥ svakarmaṇā vihitam neha kimcit |
kṛtam nimittam hi *vara*kahetoḥ |
tadevedam upapannaṁ bahūnām || 1.190.2.

It is not possible to unravel the knot of Fate.

"There is nothing here which can be decided by one's own actions. This ceremony was intended to find out one bridegroom for the daughter and has resulted in her getting many."

nirdiśyamaṇeṣu tu sā *varēṣu* varavarṇini |
varān utkrāmya sarvāṁs tān vanam vṛtavatī *varam* || 5.118.5.

"While the beautiful one was being shown her suitors, she set them aside and chose the forest as her husband (groom)".

The words *bhāryāpatī*, *dampatī* are used for the husband and wife together.

tāms tān deśān vicinvantau *dampatī* pariṇagmatuḥ | 3.282.3.

"The husband and wife wandered about exploring various regions (of the forest)."

bhāryāpatī tam asīnam....prāñjalī tasthatus tadā || 3.115.20.

“ The husband and wife waited on him with folded hands.”

WIFE.

A number of words are used for wife. The most commonly used are *bhāryā*, *patnī*, *dharmapatnī*, *jāyā*, and *dāra* and *kalatra*. Those which occur less frequently or are used but once are *sahadharminī*, *sahadharma-carī*, *gārhaṣṭhabhāginī*, *kāminī*, *kāntā* and *priya-vāsas* and *priyā*. Lastly the word *vadhū* is used in its meaning of wife only twice. The word *dayitā* occurs often as an adjective but once it may be construed to mean wife (beloved).

traya evādhanā rājan *bhāryā* dāsas tathā sutah !
yat te samadhigacchanti yasya te tasya tad dhanam || 5.33.57.

“ O king, the wife, the slave and the son, these three are without property. If they acquire anything it belongs to him, whom they belong.”

adharma'yaṁ mama mato viruddho lokavedayoh !
na hy ekā vidyate *patnī* bahūnām dvijasattama || 1.188.7

“ In my opinion this is against custom—against usage and scriptures. O best among brahmins ! many cannot have one wife.”

Dharmapatnī is an expression which occurs frequently and seems to mean a wife whom one weds according to usual rites.

yadīmāṁ *dharmapatnīm* tvaṁ mattaḥ prārthayāse 'nagha !
satyavāg asi satyena samayaṁ kuru me tataḥ || 1.94.48.

“ If you wish to have this girl (*Satyavatī*) as your wedded wife then make a pact with me.”

Draupadī, *Kuntī*, *Mādrī* are called or call themselves *dharmapatnī* on various occasions. All these who have undergone a priestly wedding were entitled to be called *dharmapatnī*. *Śakuntalā*, *Gaṅgā* were evidently not *dharmapatnīs*.

bhāryāṁ patiḥ sampraviśya sa yasmāj jāyate punaḥ !
jāyā iti *jāyātvaṁ* purāṇāḥ kavayo viduḥ || 1.68.36.

“ A husband enters his wife and is born again. That is the wifehood of a wife. (*jāyā*) so say the old seers.”

jāyā janayate putram ātmano'ṅgaṁ dvidhā-kṛtam || 1.69.30.

The *jāyā* (wife) gives birth to the son, who is but the divided self (of his father)". The concept occurs again in the *Āraṇyaka Parvan* (13.62). From this definition it would seem that the *jāyā* is any woman from whom a man begets a son and by this act she lays claims to wifehood.

The word *kalatra* is used always in the neuter gender. It occurs but rarely in the text and has perhaps not the same exalted sense that the word *patnī* has. It may have even a slightly derogatory sense like the words *das Weib* and *die Weiber* in German. It means the womenfolk.

pīḍayā ca *kalatrasya* bhrtyānām ca samāhitāḥ |
atīkṛtyā prayacchanti santaḥ sabbhiḥ samāgatāḥ || 3.198.85.

"Pious people when approached by deserving men, give away (alms) even beyond their means, even if it entails misery to their *wives* and dependents."

sa . . . dadarśa . . . nāśam Viṣṇi³kalatrāṇām || 1.2.226,27.

"He saw the destruction of the womenfolk of the Viṣṇi clan."

The word *dāra* is masculine in gender and is used always in plural. It is used very often in the text as a synonym for *patnī*. Expressions like *dāragrahaṇa*, *dārasaṅgraha*, *dāraḥkriyā*, *dārasambandha*, (1.13.223 ; 1.13.23 ; 1.13.27 and 5.170.8 ; 1.187.22) are used for the act of marriage.

yah *sādārah* sa viśvāsyah || 1.68.43.

"One who is married (is with a wife) is to be trusted."

The words (1) *sahadharminī*, (2) *sahadharmacarī*, and (3) *grāhastha-bhāginī* are not real kinship terms. They are descriptive terms which give a description of what a wife is supposed to be and mean respectively, 1 and 2 sharer in the duties and 3 sharer in the life as a householder.

prasthitau *sahadharminyū* mahatuyā daityasainyayā || 1.202.³

"They (two) started on their war with the great Daitya-army, as with a wife." (The army of a warrior equated to his wife is a device which we

³. athainam abhyayuh sarvā devasenāḥ sahasraśaḥ !
asmākaṁ tvaṁ patir iti bruvāṇaḥ sarvato diśam ||

find also in *Āraṇyaka Parvan* 218.40 where the armies of the gods are supposed to be the wives of the god Kārttikeya⁴.

...na hi śakṣyāmi kaṁcana....parityaktum ahaṁ || 1.145.30.

sahadharma-carīm dāntām nityām mātṛsamāṁ mama 1.145.31.

"I cannot make up my mind even to give up my wife (the sharer in my duties),.... and one who is like a mother to me."

mātrā pitṛā ca vihitām sadā gārhaṣṭhyabhāginīm || 1.145.32.

"She who is without father and mother and who ever shares in my toils as a householder."

The words *kāminī*, *kāntā* and *priyavāsas* mean the beloved and may be used for wife indirectly.

savyataḥ kāmuniśhāgas tvayā sa ca vivarjitaḥ |

tasmād ahaṁ nācariṣye tvayi kāmam vaiśāṅgaṁ || 1.92.10.

"The left-side is allotted to the wife (beloved). You have avoided that and so I cannot make love to you.

vilālāpa sa rājendras tatra kāntām anusmaran || 3.264.3

"The best of kings wept thinking of his wife (the loved one) "

Nahuṣo janayāmāsa ṣaṭ putrān priyavāśasi || 1.70.28.

"Nahuṣa gave birth to six children through his favourite wife."

apaśyanta.....preṣyavadhūm priyāyāḥ | 3.253.9

Saw the maidservant of their beloved (wife).

The word *vadhū* is used in the critical text generally to mean daughter-in-law. In two verses in the *Āraṇyaka Parvan* it is used in the meaning of wife.

sa Koṭikāśyas tacchrutvā rathāt praskandya kuṇḍalī |

upetya papraccha tadā kroṣṭā vyāghravadhūm iva || 3.248.17

"Hearing this, Koṭikāśya jumping from his chariot, approached and asked her, as a fox approaching the tiger's mate (wife)."

bālām apaśyanta tadā rudantiṁ | dhātreyikām preṣyavadhūm priyāyāḥ || 3.253.9,

"They saw the little attendant, the maidservant of their beloved crying," (the expression *preṣyavadhū* is on par with expressions like *pauravadhū* etc. and is used as a synonym of *strī*, i. e. woman to mean womanservant) no woman in the story is mentioned as the wife of so and so by using the term *vadhū*.

The words *dayita* and *dayitā* which occur in classical literature as substantives in the sense of the beloved or husband and wife⁴ are used in the critical text as adjectives only. Only in one place the word *dayitā* may be translated to mean wife but for the particular verse it is not necessary as it can be equally easily taken as an adjective of the substantive *mātr* following it. The verse is given below.

vākyam āha narādhipaḥ..... |

pāñcālār-jo *dayitām* mātaram vai Śikhaṇḍinaḥ || 5.191.12.

"The king of Pāñcāla said to the *beloved mother* of Śikhaṇḍin" (it may also be translated as—said to his beloved, the mother of Śikhaṇḍin).

CO-WIFE.

The co-wife is called *sapatni*. *Sapatratā* or *sāpatnaḥ* is originally any relationship which involves rivalry owing to being step-brothers or co-wives but may be used generally for rivalry. *Sapatna* is a rival, *asapatna* is a man or a thing without rival and these two expressions are used without any kinship connotation.

Pāṇḍuruvāca iyaṁ te *sapatny* anapatyā || 1.90.70.

"Pāṇḍu said (to Kuntī), "here is your co-wife childless"

kanyēpitṛtvāt kiñcit tu vakṣyēmi bharatarṣabha |

balavatsapatnatām atra doṣaṁ paśyēmi kevalam || 1.94.74.

"Being the father of a daughter I wish to speak something, O bull among Bharatas. In this (alliance) the only fault I see is the rivalry with a powerful one." (Bhīṣma is feared as the powerful step brother of the future children to be born of Satyawatī and Śantanu).

na strīṇāṁ vidyate kiñcid anyatra puruṣāntarāt |

sāpatnaḥ ūte loka bhavitavyaṁ hi tattathā || 1.224.26.

⁴ Devayānīm ca *dayitām* *sutām* tasya mahātmanaḥ 1.71.13

'Devayānī, the beloved daughter of the great Guru'

Duhitur nāpriyam soḍhum śakto'ham *dayitā* hi me 1.75.8

'I am not able to bear any harm done to my daughter, as I love her dearly.'

“In this world there is nothing else for women but to accept the position of a *co-wife* unless they choose to go to another man. That is destiny.”

āsamsate Dhṛtarāṣṭrasya putro |
mahārājyam asapatnīm prthivyām || 5.90.22.

“Dhṛtarāṣṭra's son desires to have unrivalled rule over this earth.”

sasvaje cāvadat prītā nṛṣapatnī'stu te patiḥ ||

“She embraced her and said ‘May your husband be without rivals’.”

A woman who has been betrothed to another is called *anyapūrvā* or *parapūrvā* it being implied that such a woman has had access to another man. The princess Ambā is refused as *anyapūrvā* or *parapūrvā* both by Bhīṣma and Saubha Śālva.

tām abravīt Śālvapatiḥ smayann iva viśām pate |
tvayā'nuapūrvayā nāham bhāryārthi varavarini || 5.172.4.

“The king of Śālvas as if smiling said to her, ‘O beautiful lady, I do not wish to have as wife you, who have belonged to another’.”

katham asmadvidho rājā parapūrvām praveśayet || 5.172.7.

“How can a king like me, admit a woman who belonged to another?”

BROTHER'S WIFE.

Brother's wife (man speaking) is mentioned by the descriptive term *bhrātṛdāra* or is called *bhrātur bhāryā*.

yavīyasas tava bhrāturbhārye surasutoparne || 1.99.34

“There are these two wives of heavenly beauty, of your younger brother.”

ayācām bhrātṛdāreṣu tadā Vyāsam mahāmuniṁ || 5.145.34.

“I begged the favour of the great sage Vyāsa for my brother's wives.”

The word *dāra* which is always used in plural is used once in the dual in the text.

dārayor yasya cānyena niṣataḥprājñamāninaḥ |
tava jīṭany apatyāni sajjanācarite pathi || 2.38.23.

The word *jñātibhāryā* occurs once and means the wife of an agnate relation. The position of a *jñātibhāryā* is fixed. She is wife of one, can act as wife of certain others—is mother to some, daughter-in-law to others. She cannot be degraded the way Draupadī was degraded.

kaś cānyo *jñātibhāryām* vai viprakartuṁ tathārhati |
āñīya ca sabhām vaktuṁ yathoktā Draupadī tvaya || 5.126.28.

“Who but you could have insulted and wronged the wife of an agnatic relative in the way you did by bringing Draupadī in the open assembly, and by speaking to her as you did.”

DAUGHTER-IN-LAW.

The daughter-in-law is called *vadhū* and *snuṣā*. In more than one passage she is equated to the daughter. Son's wife and brother's son's wife are called by the word *vadhū* or *snuṣā*. Even more distant cousin's sons' wives are termed daughters-in-law. And so the word is used in a classificatory sense.

yathā ca tvābhinandēmi *vadhū* adya kṣaumasamvṛtām |
tathā bhūyo'bhinandiṣye sūtaputrām guṇānvitām || 1.191.12

“O daughter-in-law, as I am congratulating and blessing you in these your rich marriage dress, so may I once again congratulate you as the virtuous mother of sons.” (Kuntī addressing Draupadī).

vadhūnām hi viśiṣṭā me tvam dharmaparamā satī || 2.63.27

“You who act according to dharma distinguish yourself among my daughters-in-law.” (Dhṛtarāṣṭra says this to the wife of his brother's sons).

tiṣṭhanti ceme kuravaḥ sabhāyām īśāḥ sūtānām ca tathā *snuṣāṇām* || 2.60.45

“In this assembly are the Kuru men, masters over their sons and daughters-in-law” (Draupadī is here addressing all the elder generation of Kurus as her fathers-in-law).

tvam hi sarvasnuṣāṇām me śreyasī dharmacārīṇī | 2.63.36.

“You who act according to Dharma are the best among my daughters-in-law” (Dhṛtarāṣṭra says this to Draupadī, the wife of his brother's sons).

In the following passages the daughter-in-law is placed in the same category as the daughter. The daughter-in-law is addressed as *putri* (cf. above) as we have already seen.

mṛṣyante kuravaś 'ceme manye kālasya paryayam' |
snuṣām duhitaram caiva kliśyamānām: anarhatim || 2.62.7

" I consider this as a sign of (decadent) times that the men of the Kuru race allow their daughter-in-law who is like a daughter, to be harrassed when she is innocent."

prāpya dakṣiṇam ūruṁ me tvam āśliṣṭā varāṅgane |
 apatyānām *snuṣāṇām* ca bhiru vidhy etad āsanam || 1.92.9

" O beautiful woman, you have come and taken possession of my right thigh. That is the place for children (sons and daughters) and the daughters-in-law."

The word *pra-snuṣā* occurs once and means wives of grand-sons or great-grandsons.

snuṣāś ca *prasnuṣāś* caiva Dhṛtarāṣṭrasya saṁgatāḥ |
 hataśvarā hataśutā hatañāthāś ca . . . || 5.139.50.

" The daughters-in-law and the grand-daughters-in-law of Dhṛtarāṣṭra, their masters and husbands and sons having been killed (weeping with Gāndhārī).

SON-IN-LAW.

The son-in-law is called *jāmātr*.

sa ca maṇḍūkaraḥ *jāmātaram* anujñāpya yathāgatam agacchat || 3.100.42.

" The frog king took his leave of his son-in-law and went the way he had come."

BROTHER OF HUSBAND OR WIFE.

Husband's brother is *devr* and wife's brother is *śyāla* or *syāla*.

ity uktā sā prarudatī paryaśaṅkata *devaram* |
 hatā vai strīsvabhāvena śuddhacāritryabhūṣaṇam || 3.262.25

“ When spoken to thus she wept loudly and being overcome by the faults (like small mindedness etc.) inherent in feminine nature began to suspect her virtuous brother-in-law.”

yo'yam rājño Virāṭasya Kīcako nāma Bhārata |

senānī puruṣavyāghra śyālāḥ paramadurmatih || 4.17.7

“ O Bhārata, tiger among men ! This Kīcaka who is the head of Virāṭa's armies and who is also his brother-in-law ” (said to me, “ be my wife ”).

Certain kinship terms denote a whole class of relations. There are *guru*, *bandhu*, *bāndhava*, *jñāti*, *sambandhin*, *janya* and *āpta*.

Guru is not a kinship term in its usual meaning, which is “ the teacher or preceptor ” but it is often times used to denote all people or any person older than oneself in the immediate family circle. Thus an elder brother is a *guru* to a younger brother. The father-in-law, the mother-in-law, the wives of the elder brothers-in-law, the father, the mother etc. are all regarded and referred to as *guru*.

guror anupraveśo hi nopaghāto yavīyasab |

yavīyaso'nupraveśo jyeṣṭhasya vidhīlopakaḥ || 1.205.27

“ Entry of a younger after the elder is not censurable, while entry of the older after the younger is a breach of duty on the part of the older.”

guruwat pūjayāmāsa kāmś cit kāmś cit vayasavāt

kāmś cid abhyavadat preṃṇā kaiś cid apy abhivāditah || 1.213.39.

“ He greeted some with greetings worthy of elders—greeted others as contemporaries, bowed to some with love and revered in turn by some.”

kṣāntam eva mayā rājan gurur naḥ paramo bhavān | 3.7.21.

“ O king ! I have already forgiven you. You are our highest Guru.” (You are the eldest of us all).

Ime sabbāyāṃ upadīṣṭasāstrāḥ |

gurusthānāḥ guravaś caiva sarve |

teṣāṃ agre notsahe sthātum eva || 2.60.29.

“ I fear to stand in front of all those elders versed in the traditional lore—all these elderly relatives who are sitting in the assembly.”

Dhṛtarāṣṭrāśramapadam Vidurāś ca jagāma ha 1.2.212.
yam dṛṣṭvā prasthitam sēdhvī Prthēpy anuyayau tadā
putrārājyaṁ parityajya gurūsūśrūṣaṇu ratā 1.2.213.

“ Dhṛtarāṣṭra and Vidura went to the forest. Seeing this the good Kuntī always bent on serving the elders, followed them, leaving the kingdom of her sons.”

prayatnāc ca gurū vṛddhau śuśrūṣe'ham dvijottama 3.198.20.

‘ O best of Brahmins, I make every effort to serve my two old gurus (parents).’

bhartāro vāsagā mahyam gurūsūśrūṣaṇena ca 3.222.37.
nityam āryēṁ aham Kuntīm....svayam paricarāmy ekā 3.222.38.

“ My husbands abide by my will because I always serve the elders of the family. I myself without any help attend to the wants of the revered mother-in-law Kuntī.”

mama bhāryā tava gurur iti Sundo'bhyabhāṣata
mama bhāryā tava vadhūr Upasundo'bhyabhāṣata 1.204.16.

Sunda said, “ She is my wife and your guru (to be revered as an elder). ” Upasunda replied, “ She is my wife and therefore your daughter-in-law.”

The words *bandhu* and *bāndhava* are generally used in plural and where they are used in singular they are often times used in a collective sense. They both mean “ a relative ” either on the mother's side or father's side. They refer to any person who is in any way related in a bilateral family.

In some passages the word *bandhu* may be construed to mean friend, but as all friends were bound by ties of relationship ultimately a friend meant a relation. On the other hand in certain passages *bandhu* is distinguished from friend as a mere relative.

ātmaiva hy ātmano bandhur ātmaiva ripur ātmanaḥ 5.34.62.

One self is one's own kin and one's own enemy.

yadi ced apy asambandho mitrabhāvena vartate
sa eva bandhus tan mitraṁ sā gatiḥ tat parāyapam 5.36.35.

“He who acts like a friend even when unrelated, is a real kin, a real friend, is the refuge and highest good.”

śrutvaiva tat karma niyantrum ātmā śakyas tvyā vai saha bāndhavena 5.61.8.

(Bhīṣma to Karna). “On even hearing of that deed you should with your kin (friends ?) restrain yourself.”

*aholābhakaram dinam alpajivanam alpakam
nedṛṣṁa bandhum āsēdya bāndhavāḥ sukham edhate* 5.131.25

“The kindred do not get any happiness through a relation or through relations who are satisfied with small things, who live petty lives and are mean and petty.”

Karṇo vaikartanas tava mantri netā ca bandhūś ca 5.165.4

“Karna, the son of Vikartana, is your adviser, leader and kin (Genosse).”

tiṣṭhate hi suhṛd yatra na bandhus tatra tiṣṭhati 5.104.6

“A friend stands by you in situations where a kindred turns away.”

...tathā bandhumatām api vidhavānām ca vittāni hariṣyantiha mēnavāḥ 3.188.30.

“Also, people will rob the money of even those widows who have kindred.”

sarve te priyam icchanti bāndhavāḥ sahasṛñjayaiḥ 3.36.15

‘All your kin together with Sṛñjayas wish well of you.’

*na tasyāśvo na ca ratho na bhrātā na ca bāndhavāḥ
vane nivasatā rājan śiṣyante sma kadācana* 3.49.41

“To him living in the forest were not left (he was not allowed to have) the horse, the chariot, the brother or the kinsmen.”

The words *bāndhu* and *bāndhava* are well illustrated in the following verses from the Adiparvan, 145th Chapter.

*yatitam vai mayā pūrvaṁ yathā tvaṁ vettha brāhmaṇi
yataḥ kṣemaṁ tato gantum tvayā nu mam na śrutam* 26

*iha jātā vivṛddhāśmi pitā ccha mameti ca
uktavaty asi durmedhe yācyamānā mayāsakṛt* 27

svargato hi pitā vṛddhao tathā mātā ciraṁ tava
 bāndhavā bhūtapūrvāś a tatra vāsē tu kā ratiḥ 28
 so'yaṁ te bandhukāmāyā aśṛṇvanto vaco mama
 bandhupranāśaḥ samprāpto bhṛasaṁ duḥkhakaro mama 29
 athavā madvināśo'yaṁ na hi śakṣyāmi kaṁcana
 parityaktum ahaṁ bandhum svayaṁ jīvan nṛśaṁsavat 30
 parityaktum na śakṣyāmi bhāryāṁ.... 33.
 kuta eva parityaktum sutaṁ śakṣyāmy ahaṁ....34

"O wife, you know how I had tried formerly to go to a safer place. But you, oh foolish one : when I begged you to leave said that you were born and brought up here and that your father also lived here. Now since long have your parents died. What joy is there in living in a place where the kin (bāndhava, here father and mother) had formerly been. You who had loved the kindred (bandhu-kāma) so much are now faced with utter destruction of your kindred (bandhu pranāśa). Or rather it is my own end for I can never give up my kindred, keeping myself alive like a heartless person. How can I give up my wife or how is it possible for me to abandon my daughter? The father, the mother, the wife and the daughter are here mentioned as bandhus and bāndhavas."

ime vai bandhudāyādāḥ saṭ putrā dharmadarśaṇe
 saḍ evābandhudāyādāḥ putrāś tān śṛṇu me pṛthe 1.111.27

"O Pṛthā, listen to me. These six are known according to dharma books to be sons who are both bandhus and dāyādas ; while there are six other sons which are neither bandhu nor dayāda " (for further discussion on this see part II of this paper).

Jñāti definitely shows agnatic relationship and includes all those who trace their descent from one male ancestor

bhavanti bhedā jñātīnāṁ kalahāś ca Vṛkodara
 prasaktāni ca vairāṇi jñātīdharma na naśyati 3.232...
 yadā tu kaścid jñātīnāṁ bāhyaḥ prārtahayate kulam
 na marṣayanti tat santo bāhyenābhipramarṣaṇam 3.232.3.

The agnatic relations may differ and have quarrels or they may nurse long-standing feuds and yet the clan-ethics (or duty to clan) is not

destroyed. When one who is not an agnatic relation, challenges the family, that seizure is not brooked by good men.

dhūmāyante vyapetāni jvalanti sahitāni ca
Dhṛtarāṣṭrolmukānīva jñātayo bharatarābha 5.36.58

“O Dhṛtarāṣṭra, best among Bharatas, the agnatic relations are like sticks used for firebrand. They smoke when separated but burn clearly when bound together.”

mahān apy ekajo vṛkṣaḥ balavān supratisthitah
prasahya eva vātēna śākhāskandham vimarditum 3.35.60
atha ye sahitā vṛkṣāḥ saṁghaśaḥ supratisthitāḥ
te hi śighratamān vātān sahaṁte nyonyasamśrayāt 5.36.61
anyonyasamupaśṭhambhēd anyonyāpāśrayeṇa ca
jñātayaḥ saṁpravardhante sarasīvotpalāṇy uta 5.36.63

“A mighty tree, deep-rooted, if standing alone can be destroyed by a stormy wind, but trees which stand well clustered can withstand even the strongest wind by sheltering one another. In the same way by mutual help and trust does a family (agnatic relationship) grow like lotuses in a pond.”

yo jñātim pratigrahaṇāti daridraṁ dīnam āturam
sa putrapaśubhir vṛddhiṁ yaśaś cāvayam aśnate 5.39.15

“He who supports a needy and a stricken agnatic relative becomes prosperous by getting sons and cattle and gains undying fame.”

vigraḥ hy api saṁrakṣyā jñātayo bharatarābha
kim punar guṇavantas te . . . prasādam kuru dīnānām Pāṇḍavānām 5.39.18.

“Agnatic relations must be protected even though undeserving of protection. The Pāṇḍavas are worthy and virtuous. Be good to the poor sons of Pāṇḍu.”

jñātibhir vighrahaḥ tāta na kartavyo bhavārthinā
sukhāni saha bhojyāni jñātibhir bharatarābha 5.39.21

‘One, wishing for the goods of this earth should not fall out with his agnatic relations. All the happiness of this earth must be shared with ones kin.’

yaś cānyo jñātibhīryām vai viprakartum tathārhati
ānīya ca sa bhām vaktum yathoktā draupadī tvayā 5.126.8

“Who else would insult the wife of an agnatic relation as has done by bringing Draupadī in the open assembly and by speaking to her as he did?”

tvatto hy apatyalābhena *jñātīnām* me śivam bhavet || 1.43.35

“My family (agnatic clan) will be blessed by getting an offspring from you.”

uttīṣṭha bhadre Sarmiṣṭhe *Jñātīnām* sukhām āvaha || 1.75.16

“Get up, good Sarmiṣṭha and work for the good of your kindred.”

tato dadau Vāsudevo janyārthe dhanam uttamam |

haraṇam vai Subhadrāyāḥ *jñātideyaṁ* mahāyāsāḥ || 1.213.40

“Then Vāsudeva gave as dowry for Śubhadrā a lot of money dowry which is to be given by agnatic relations.”

Jñātayo yasya naiva syur viśamāḥ kulapāmsanāḥ |

sa jīvet susukham loke grāme druma ivaikajāḥ || 1.138.24

eko vṛkṣo hi yo grāme bhavet parṇaphalānvitaḥ |

caityo bhavati *nirjñātir* arcanīyaḥ sūpūjitaḥ || 1.138.25

eṣāṁ ca bahavaḥ sūrā *jñātayo* dharmasamśritāḥ |

te jīvanti sukhām loke bhavanti ca nirāmayāḥ || 1.138.26

....jīvantv anyonyam āśritya drumāḥ kṣānanajā iva || 1.138.27

‘One, who has no enemical kin, who are a blot to the family, may hope to live happily, like an only tree in a village. An only tree full of leaves and fruit and without rival kindred is worshipped as a fetish. Those also who have many agnates abiding by the family law, and who are valorous, they also live happily and unafraid in this world, like forest trees which live by mutual support.’

Jñāti are the living kin. Nowhere are dead ancestors mentioned as *Jñātis* of the living. That the reference is always to the livings agnatic kin is made clear in the following :—

jñātīḥ suhṛt svajano yo yatheha |

kṛṇe vitte tyajyate mānavair hi |

tathā tarta kṛṇapunyaṁ manusyaṁ |

tyajanti sadyaḥ seśvarā devasamgṛhāḥ || 1.85.2,

‘Just as on this earth, the kindred and the friend abandon a man when he loses his wealth, so in heaven the host of gods abandon him who loses his merit.’

dharmanityaḥ sadā pāṇdur mamāsīt priyakṛd dhitaḥ |
sarveṣu jñātiṣu tathā mayi tv āsīt viśeṣataḥ || 1.130.2

‘Please give a second king for the line of the Kurus, a king who will multiply the line of his ancestors and who will protect the line of his kindreds.’

jñātivamśasya goptāraṁ pitṛṇāṁ vaṁśavardhanam |
dvitīyaṁ kuruvamśasya rājānaṁ dātum arhasi || 1.100.12.

‘Pāṇḍu always abided by Dharma, cared for the well being of his kindred and was particularly attentive to my needs.’

rājā rājñāḥ katham sādhuḥ himsyān nṛpatīsattama |
tadrājñāḥ saṁnigṛhya tvam rudrāyopajihīṣasi |
te tvāṁ jñātīkṣayakaraṁ vayam ārtānusāriṇaḥ |
jñātivṛddhi-nimittārthaṁ viniyantum ihāgatāḥ | 2.20.8,12

“O best of kings, how can a king kill other kings? You have imprisoned kings and wish to offer them as sacrifice to Rudra. You are thus destroying your kindred (the kṣtriyas as children of Manu are thought of as kin) and we wishing to protect the oppressed, and wishing the prosperity of the kindred have come to prevent your action.’

Sambandhin means a person related by marriage.

dūtaś ca hi hr̥ṣīkeśaḥ sambandhi ca priyaś ca naḥ | 5.86.17

‘Hr̥ṣīkeśa has come as a messenger, he is related to us by marriage and is dear to us’ (Dhṛtarāṣṭra to Duryodhana).

Śiśupālasuto vīraś cedirājo mahārathaḥ |
Dhṛṣṭaketuḥ sambandhī . . . Pāṇḍavasya ha || 5.168.3

Dhṛṣṭāketu, the son of Śiśupāla, and the king of Cedi is a great charioteer and is related by marriage to the Pāṇḍavas.

ukto mayā Vāsudevaḥ punaḥ punar upahvare |
sambandhiṣu saṁjñam vṛttim vartasva Madhusūdana || 5.154.27

Balarāma says :—I have told Vāsudeva again and again that he should maintain a position of neutrality towards (quarreling) clans who are related to us by marriage.

Virātadrupadāv ubhau....yatiṣyete param śaktayā....

sambandhakṛtena rājendra | 5.167.7—10.

‘ King of kings ! Virāṭa and Drupada will fight with all their might, as they are related by marriage (to the Pāṇḍavas)’

sambandhibhūvaṁ raksantau mahat karma kariṣyataḥ | 5.167.13.

‘ They having regard to their connection (by marriage) will do deeds of valour.’

katham *sambandhinā* sārddham na me syād vighraho mahān |

iti sancintya manasā daivatāny arcayat tadā || 5.192.9’

‘ He worshipped various gods trying to find means so as to avoid enmity with the clan connected with him by marriage ’ (Drupada and Śikhandin’s father-in-law are referred to here.)

evam vayan *Jarāsandhādītaḥ* kṛtakilbiṣāḥ |

sāmartyavantaḥ *sambandhād* bhavantaṁ samupāśṛitaḥ || 2.13.53

‘ So we, injured by Jarāsandha, becoming powerful have sought your alliance as you are connected with us (through wars.) Kṛṣṇa talking to Dharmarāja.’

The word *janya* is used for marriage guests, especially the relatives of of the bride-groom.

Kānyakubje vai dadau Satyavatīm tadā | *

tato Gādhiḥ sutam tasmai *janyās* pāsan surās tadā || 3.115.17

“ Then in the city of Kānyakubja, Gādhi gave him his daughter. At that marriage, the gods came as the kin of the bridegroom.’

tato dadau Vāsudevo *janyārthe* dhanam uttamam |

haraṇam vai Subhadrāyāḥ jñātideya mahayasahm || 1.213.40.

‘ Then Vāsudeva gave that which is to be given by the agnates of the bride to the bridegroom’s people plenty of money, the dowry of Subhadrā.’

Dūta uvāca :

janyārtham annam Drupadena rājñā |

vivāhahetor upasamskṛtam ca |

tadāpnuvadhvam kṛtasarvakāryā |

Kṛṣṇā ca tatraiva ciraṁ na kāryam || 1.186.1

‘The messenger said, “King Drupada has prepared a feast for the bridegroom’s party. Enjoy it and do not let Kṛṣṇā remain long at your house.”’

tato rājā yajñasenaḥ saputro |
 janyārthayuktaṁ bahu tat tad agrayam |
 samānayāmāsa sutam ca kṛṣṇām
 āplāvya ratnair bahubhir vibhūṣya 1.190.6

‘The king Yajñasena with his sons brought the best of everything as the gift for the bridegroom. And brought also his daughter after adorning her with precious jewels.’

The word *āpta* is not a kinship term. It is used for people who are loyal and trusted and is used of spies who generate trust in others and can thus know the secret of others, or do harm to them. Sañjaya is once called *āpta*. Vidura is called *āptatama* (the most trusted) but nowhere has the term any definite kinship connotation as it can be equally well translated by the word trustworthy. The word *anāpta* is used of one who cannot or should not be trusted.

suhṛdāṁ yatamānānām āptaiḥ saha cikitsikair |
 jagāmāstam..... || 1.96.58.

‘He died in spite of all the efforts of his friends, working with the help of trusted doctors.’

kṛtaṁ hi vyaktaṁ āgneyam idaṁ vēṣma vo |
 śilpiḥ śukṛtaṁ hy āptaiḥ..... || 1.134.14 and 15.

‘This house seems to be made of combustible material by the help of trusted carpenters.’

anāptair dattam ādatte naraḥ śastram lohajam |
 śvāvic charaṇam āśṛdya pramucyeta hutāśanāt || 1.133.22
 tato rājñām carair āptais cāraḥ samupanīyata || 1.192.1

Then news was brought by the kings trusted messengers.’

adya tān kuśalair vipraiḥ sukṛtair āptaḥṛibhiḥ |
 Kuntīputrān bhedayāmo || 1.193.4

Now we shall try to divide the sons of Kuntī by employing clever trustworthy spies.

te loptrahāraiḥ saṁdhāya vadhyantām āptaḥṛibhiḥ | 1.193.16

“ They should be killed through some trustworthy members of the thieving profession.”

anāptaḥ sann āptatamasya vācam |
Suyodhano Vidurasyēvananya |
sutasya rājā Dhṛtarāṣṭraḥ priyaiṣi |
sambudhyamāno viaśte'dharmam eva || 5.26.11

“ Himself unreliable and paying no heed to the words of the most trustworthy Vidura the good-fighting King Dhṛtarāṣṭra is doing wrong, though otherwise exhorted in the interest of his son.”

Yudhiṣṭhira uvāca : āpto dūtaḥ Saṁjaya supriyo'si || 5.30.4

“ Saṁjaya you are a loyal messenger and dear to us.”

anāptānām pragrahāt tvam narendra |
tathāptānām nigrahāc caiva rājan |
bhūmim sphītām durbalatvād anantām |
na śaktas tvam rakṣitum Kauraveya || 5.32.29

“ O Kaurava give, you cannot retain this prosperous kingdom as you have weakened yourself by accepting the alliance of untrustworthy (can also be translated as not kin) men and by casting away the loyal ones.”

Vārṣṇeyam ānayāmāsa puruṣair āptakāriḥ || 3.57.10.

“ She caused Vārṣṇeya to be brought to her through trusted messengers.”

There are certain other terms which are used to denote a family, a household, a patriarchal line etc. Their connotation must be fixed from the context in which they occur in the critical text. These words are :—

kuṭumba, kula, gotra, varṣa, anvaya, anvavāya.

From the following it will be evident that *kuṭumba* is the immediate household and *kuṭumbinī* is the housewife :—

atho kasmāt Saṁjaya Pāṇḍavasya |
utsāhinaḥ pūrayataḥ svakarma |
yathākhyātam āvasataḥ kuṭumbinī |
purākalpāt sādhu vilopam āttha || 5.29.4

‘ O Saṁjaya on what grounds do you assert that the Pāṇḍavas have failed in the traditional duty—Pāṇḍavas who carried household according to custom and who abided by their traditional duties.’

yadā pravasate bhartā *kuṭumbārthena* kenacit |
sumanovarnakāpetā bhavāmi vratacārīṇi || 3.222.29.

‘ When my husband is away on travel on some matter concerning the family, then I live like an ascetic without flowers and rouge.’

ye ca dharmāḥ *kuṭumbeṣu* śvaśrīvā me kathitāḥ purā |
bhikṣābaliśrāddham iti sthālīpākāś ca parvasu |
mānyānām mānasatkāra ye cānye viditā mayā ||
tān sarvān anuvartāmi divārātram atandritā || 3.222.32 and 33

‘ All the formalities which are traditional to this house like giving of alms, giving of bali, making funeral oblations and carrying out the sthalipaka sacrifice as also the paying of honour to certain revered persons, and all customs told to me by my mother-in-law all these I conform to without fail, day and night.’

mayi sarvaṁ samāsajya *kuṭumbaṁ* bharatarṣabhāḥ |
upāsanaṛatāḥ sarve ghatante sma || 3.222.52.

‘ Consigning the whole family to my care, my husband’s care, only for the worship of gods.’

Kula originally means a household. It is however used frequently in an extended sense to mean the family living in one household. It also means the whole family including its living and dead members. It seems to have reference to the agnatic relationship when one spoke of one’s *kula* but is used with reference to mother’s and maternal uncle’s family as the word *jñāti* never is.

ekakālan caran bhaikṣyaṁ *kuṭāni* dve ca pañca ca |
asambhave vā bhaikṣyasya carannan aśnāny api || 1.110.12

‘ I shall live by begging only once a day at seven houses and if I should not obtain any alms living without food.’

grāme śucini pracaran *kuṭāni* bharatarṣabha |
praviṣṭas tat kulam yatra pūrvaṁ caritavāms tu saḥ || 3.197.7

‘ King of Bharatas ! he was in the habit of begging alms at respectable houses in the town. He entered the house which he had often visited.’

tato rājakaḷadvāri prasuptam iva taṁ nṛpam |
rātrau parāsum utsṛjya niścakramur arimdamāḥ || 2.22.10.

‘ The killers of enemy went out, of the city leaving the dead king as if sleeping, at the door of the palace (king’s house).’

tau sametya mahārāja KuruCedivṛsau tadā |
ubhayaṛ ātmaḷalayohḷ kauśalyaṁ paryapṛcchatām || 2.26.13.

‘ The kings of Kuru and Cedi met each other and asked after the health of each others families.’

Duryodhanena yady etat pāpam teṣu purā kṛtam |
tvayā ḷavāddhena pratyāneyaṁ nareśvara || 5.39.29

‘ O King, you are the eldest of your clan (family) did not right the wrong which Duryodhana had inflicted on them.’

ḷāni samupetāni gobhiḷ puruṣatośvataḷ |
ḷasamkhyām na gacchanti yāni hīnāni vṛttataḷ |
vṛttatas tv avihīnāni ḷāny alpadhanāny api |
ḷasamphkhyām tu gacchanti karṣanit ca mahad yasaḷ | 5.36.28 and 29

‘ Those families which are of low moral character, never multiply, even though they possess, cattle, horses and men. But families of a high moral character though possessing but small fortunes, are multiplied and gain great fame.’

aṣṭau guṇāḷ puruṣam dīpayanti |
prajjñā ca ḷalyaṁ ca damaḷ śrutam ca || 5.35.45.

‘ Eight things make a man shine—wisdom, birth in a good family, self-control and learning etc.’

Such terms as *mātr-ḷa* (the mother’s house-family), the *pitṛ-ḷa* (father’s family), *mātulaḷa* (the maternal uncle’s family), and *Vṛṣṇi-ḷa*—the Vṛṣṇi line, *Bhṛguḷa*, the Bhṛgu line occur also. These various usages show that word *ḷa* is applied to the family and includes the dead as well as the living members of the same. Just as

one uses English terms like the house of Tudor, the house of Windsor etc., so the expressions like *Vṛṣṇikūla* must be interpreted.⁵

The word *gotra* appears but very rarely and its exact significance cannot be determined from the contexts in which it occurs. It may mean family or household.

etāvat Pāṇḍavānām hi nāsti kimcid ihe svakṣem |
nāmadhēyaṁ ca *gotraṁ* ca tad apy eṣāṁ na śiṣyate || 5.71.15

‘Not even this much is in this world that belongs to the Pāṇḍavas. Not even their name and Gotra remain to them.’

The word *vaṁśa* occurs often and can be best translated by the English word line. Ailavaṁśyas mean the kings born in the line of Ilā ; Ikṣvāku *vaṁśas* mean the kings born in the line of Ikṣvāku. The word *vaṁśa* seems to have reference to the linear arrangement of a family shown in geneological tables. There are many men born in a *kūla*—the ruling man and those whom he succeeded as also those succeed him, form the *vaṁśa*. In two places the word *vaṁśa* is compounded with *kūla* to mean the line of kings upholding the name of a certain family. It must however be noted that words like *kūlakāra* and *vaṁśakāra* seem to have the same sense where *kūla* is used as a synonym of *vaṁśa*, both the expressions meaning “one who gives his name to a line or a family”. The expressions may also mean simply the continuer or upholder of the line.

mayā tu rakṣitavyeyam purī bharatasattama |
yāvad rājño'sya nīlasya *kūlavāṁśadharā* iti || 2.28.34

‘O best of Bharatas, I must guard this city as long as there are reigning kings of the line of Nīla.’

na ca *vaṁśakāras* putras tasyājāyata kaścana . 2.16.20.

‘To him was not born a son who could uphold his line.’

eko *vaṁśadharah* sūra ekasyām sambhaviṣyati || 3.104.15

‘To one (of your queens) shall be born only one brave son who shall continue the line.’

Pāñcājanyaḥ śruto veda *pañcavaṁśakāras* tu sah . 3.210.5

⁵ The Marāṭhī word *ghara* means a household just as *kūla* does while *gharāṇe* means a family or a line.

In the Vedas he is known as Pāñcājanya and is the founder of five lines.

avarṇakāriṇam satsu kulavamsasya nāśanam
kalim putrapravādena Saṁjaya tvām ajījanam 5.131.27

‘Through you who are the doer of infamous deeds, the destroyer of the family and the line, I have given birth to Kali, in the guise of a son.’

vamśamūlakam āśādy tīrthasevī kurūdvaha
svavamśam uddhared rājan snātvā vai vamśamūlake 3.81.34.

‘O best of Kurus, who art fond of pilgrimage, go to Vamśamūlaka because by bathing there one uplifts one’s vamśa.’ (In this verse is made clear the analogy between a Bamboo which grows in a linear direction by adding one nodule to another and a human pedigree which runs from father to son. Vamśamūlaka must have been a bamboo thicket growing near a river and by bathing near the roots of this thicket one secured the growth of one’s family, and the continuity of one’s line of succession—(obviously a piece of sympathetic magic).)

The words *anvaya* and *anvavāya* refer to single lines of succession. At two places in the *Āraṇyaka Parvan* the word stands for a “son” as one who succeeds, though this usage is peculiar.

Cyavanasyānvaye jātaḥ khyāto vedavidāni varah 1.48.5

‘Born in the line of Cyavana, famous and best among the knowers of Vedas.’

Agmir āgrayaṇo nāma bhānor evānvayas tu saḥ 3.211.13

‘The *Āgrayaṇa* fire is the son of *Bhānu*.’

caturbhiḥ sahitaiḥ putrair bhānor evānvayas tu saḥ 3.211.14

‘He, the son of *Bhānu*, with his four sons.’

asti somānvaye me jātaḥ kaścin nṛpaḥ sakhā 5.112.6

‘In the line of *Soma* is a king who is my friend.’

SUMMARY.

(a) (i) In the parent’s generation distinct kinship terms of designatory (like *mātula* mother’s brother) or descriptive (*pituḥ svasar* father’s sister)

type exist for mother's brother, mother's sister and father's sister.

(b) No separate term exists for father's brother. He is everywhere addressed as father or younger father. Mother's sister is also called mother once.

(ii) In the ego's generation no term exists for children of mother's brother, father's sister or mother's sister and for father's brother's children. All these are called brother and sister. Thus the concept of cousinship is entirely absent⁶. In the son's generation no terms other than son exist for brother's son (man speaking while a separate term *vasrīya* is used to designate a sister's son (man speaking)).

(iii) The term brother covers the following relations : own brother, father's brother's son, father's sister's son, mother's brother's son, mother's sister's son, father's father's (grandfather's) brother's son's son, father's father's father's (great-grandfather's) brother's son's son's son.

(iv) The term father covers the following relations : father, father's elder and younger brothers—all father's cousins of the father.

(v) The term mother is used for own mother, mother's co-wives, mother's sisters, father's brother's wives, father's cousin's wives.

(vi) The terms daughter and sister were very probably used in the same way as the terms son and brother but the epic data have not yielded any examples (except one cf. above) of such usage as references to women relatives are very rare.

(vii) The term son covers the following relations : own son and cousin's son.

⁶ In modern times, in the countries to the south of Narbada, the practice of cross-cousin marriage is widely prevalent. The parallel cousins are placed on a par with one's own brothers and sisters and are termed just 'brothers and sisters.' The cross-cousins however receive special kinship-terms and the term may, as in Marathi bring out their function, as marriage-mates. It often happens that a south Indian reserves the English term 'cousin' for a cross-cousin and refers to a parallel cousin as a cousin-brother or sister.

(viii) The term father-in-law is applied to husband's father and to all cousins of husband's father as also to father's grandfather and all male relatives of that generation.

(ix) Mother-in-law stands for the own mother of the husband as also all the wives of the cousins of the father of the husband.

(x) The daughter-in-law is the wife of the son as also the wife of the cousin's son.

(xi) Terms exist for great-grandfather on the one hand and great-grandson on the other. Thus seven men, three above and three below the generation of the ego, formed a closely knit, well recognised unit. All these might have lived contemporaneously in a joint household. References show that one's good deeds benefitted ancestors removed by seven degrees from the doer of the deeds. (*āsaptam kulam punāti—Āraṇyaka Parvan*).

(xii) It is a system of terminology in which male relations are recognised far more fully than female relations and terms like father, mother, brother, sister, son, daughter-in-law, father-in-law are used in a classificatory manner. In part II the kinship usages are discussed in order to find out whether custom and usage tallied with the classified classificatory use of certain terms. The structure of the kinship terminology leads us to infer the existence of a joint family of a patriarchal nature with levirate as its invariable concomitant. The following description of the family organisation of the epic will show how far the kinship usages were in consonance with the system of the kinship terminology discussed in this part.

PART II.

The whole of the epic is a family saga where the fortunes of a particular royal house have been traced in great detail for four generations. The problems dealt with are typical of a patriarchal joint family and are of perennial interest to all Hindus as the same problems are faced even today by many joint families in India. The dominant pattern is that of a patriarchal joint family but side by side with it and in constant contact with it is another type of family which is also represented in certain Indian provinces today.

The princes and kings who gathered together on the eve of battle were all connected with each other by the ties of blood, or the ties of marriage. Their relationship can be traced on a genealogical table. All these together formed a sort of a federation (*Bund*) of allied royal houses. They were *bandhus* and *sambandhins* of one another. They belonged to various related *kulas* or families. The *kulas* were made up of living and non-living members of a family and each *kula* was known by the names of its illustrious ancestors. The living members of a *kula* or a patriarchal clan were called *jñāti* while all those connected with a *jñāti* by marriage ties were called *sambandhins*. Within the *jñāti* or *kula* succession and inheritance was from father to the eldest son, the collateral line being ordinarily barred from succession. This mode of inheritance or succession from father to the eldest son and then to the eldest son's eldest son is followed in giving king's lists or *anvaya*, *anvavāya* or *anuvamśa*.

The relationship of father and son was so conceived that the living person of a *kula* was the physical counterpart of his father and so of all his ancestors. The continuation of a line was absolutely necessary for the ensuring of the regular feeding of the ancestors in heaven. As long as one remembered one's ancestors and cared for them on the day of the yearly *Srāddha* so long did the ancestors remain in heaven. A man entering his wife is born through her again (1.68.36). This same concept is developed in the Mbh. into one of memory of the dead. As long as there is some one who remembers the dead so long may the dead live in heaven. Yayāti was pushed down from heaven because nobody remembered who he was. King Indradyumna who had fallen from heaven because nobody knew who he was, regained his lost heaven as soon as an aged tortoise remembered his name as an institutor of great sacrifices. (3.101). The original idea seems to be that as long as the line continued unbroken, and as long as ancestor-offerings were made, so long was heaven assured to the men of a family. Later on probably the idea came up that the same end could be achieved by making large religious gifts, by performing sacrifices and thus by getting the blessings of many, gain immortal fame here and eternal residence above. The patriarchal family owed its present existence and the status of its living members to the fact of these having certain common ancestors. This relation with the past was a physical bond, and was the prime sanction for present claims as will be seen later. Thus

the patriarchal family was firmly grounded in the line of its ancestors in as much as the ancestors and their status were a guarantee of the status of the present members. Mutual behaviour and the rights and duties of all the living members of this family were determined at the very birth of each member and the fate of the future generations was also more or less fixed by the predetermined position of the living members. The inheritance was generally held in common for the benefit of all; nominally the eldest male being in absolute authority. According to the best tradition the common property could be divided neither during the life-time of the father, nor after his death, although such a partition was not unknown. In *Ādi Parvan* is told the story of two brothers who, instead of living amicably together, wished to divide their patrimony. They died and were born as an elephant and an alligator fighting with each other and were ultimately both eaten by the divine eagle Garuḍa. (1.25.13). In the kingdom of Uparicara everything went on in the best traditional way and "the sons never desired a partition from their fathers" (1.57.10). When the kingdom was given to Pāṇḍu he also ruled in a beneficent way over all his agnatic relations and was specially kind to his brother Dhṛtarāṣṭra (1.130.2). Duryodhana envisaged a future in which he and his descendants would have to live as dependants of Pāṇḍavas, finding satisfaction in whatever food and clothing was given to them by the Pāṇḍavas (*te vyaṁ rājavāmsena hīnāḥ saha sutair api . . . satatāṁ nirayaṁ prāptāḥ parapiṇḍopajīvināḥ* 1.129.16 and 17). Thus one who succeeded to the office of the head of the family also held all the property, though it was held in order to enjoy it in common with all agnatic relations. The head of this family was the father of the family who had absolute power over all the members of his family. We have thus the joint family with the joint property, the succession and inheritance from father to eldest son and the absolute rule of the father. These three principles sometimes clashed and the problems arising out of the antagonism of these three principles of the family organisation were solved in various ways as the following examples will show.

When we read the kings' lists as given in the *Ādi Parvan* we notice that though the kings had more than one son the kingdom was generally inherited by the eldest son. Certain notable exceptions to this rule occur.

(a) The displeasure of the father was enough to deprive a son of his birth-right if the father was powerful enough. Bharata set aside his nine elder sons in favour of Bhūmanyu (1.89.17 and 18).⁶ Yayāti set aside his elder sons and gave the kingdom to Puru, the youngest against the wishes of his subjects.

(b) If the eldest son had some physical or mental defect he was set aside in favour of the younger. Devāpi the eldest brother of Śantanu was deprived of his inheritance as he suffered from some skin-disease; (5.147.14 and 17) so also was Dhṛtarāṣṭra set aside in favour of Pāṇḍu because he was born blind. (1.102.23). It was thought that gods did not tolerate a king who was physically defective (5.147.25). When a son was thus deprived of his inheritance the kingdom passed into the hands of a younger son and his descendants and did not as a rule revert to the descendants of the son who was deprived of his inheritance.

All the intrigues of Dhṛtarāṣṭra and his son Duryodhana were directed towards preventing the establishment of Pāṇḍu's line. That when once deprived of the kingdom neither Dhṛtarāṣṭra nor his sons had any claim to the throne was fully realised by them as numerous passages show. Duryodhana himself says (1.129.12-17), "Pāṇḍu got the kingdom from his father and you lost it owing to your defect. Now if Pāṇḍavas get this inheritance from Pāṇḍu it is assured in their line from father to son and we deprived of the kingly line shall not be despised by all." Dhṛtarāṣṭra also asks his son how it would be possible to usurp the kingdom from Dharma who had got it from his father and grandfather (1.130.3 and 4). Gāndhārī stresses the same point (5.146.31 and 32). Especially significant is the expression, "how can you hope for a kingdom when I was without a share in it". (*mayyabhāginī rājyāya katham tvaṁ rājyam icchasi* 5.147.30).

Every time the eldest son was set aside there was some stir created. Yayāti had to give some plausible excuse for his high-handedness, and

⁶ *putrān dvādaśa yānāha nṛṇāṁ svāyambhūvo manuḥ
leṣāṁ śaṭ bandhudāyādāḥ śaḍ adāyādabāndhavāḥ* 9'158.
*aurasaḥ kṣtrahas caiva dattāḥ kṣtrima evaca
gudhotpanno'pavidhas ca dāyādā bāndhavās ca śaṭ* 9'159.
*kānīnas ca sahoḍhas ca kṛtāḥ paunarbhavas tathā
svayamāndattas ca saudras' ca śaḍ adāyādabāndhavāḥ* 9'160.

gave the border provinces to his other sons. Devāpi and his aged father died broken-hearted as the consequence of Devāpi not getting the kingdom and the Bhārtīya battle which destroyed almost the whole Kaurava clan was fought as the result of the setting aside of Dhṛtarāṣṭra in favour of Pāṇḍu. Powerful kings like Bharata and Sagara and Yayāti could carry out their wishes successfully, but the untimely death of Pāṇḍu far away from the capital left his children and widow at the mercy of collateral relations.

Certain behaviour patterns emerge out of the absolute power enjoyed by the father of the family. The father-son relationship is such that absolute obedience, respect and sacrifice is demanded by the father from his sons. In most of the stories in the critical edition this pattern is followed as in the cases of Puru, Rāma Dāśarathi, Bhīṣma and Jantu (sacrificed by the father). On the other hand setting aside an aged father or circumventing his wishes while paying him homage in words are also given as behaviour of a son who is a blot to his family. Such sons are the sons of Dīrghatamas (1.98.18 and 19) and Duryodhana himself.

The husband-wife relationship is also one of obedience to and service of the husband by the wife. The highest praise to a woman is *patilokam vṛnvānā* 'choosing the fate of her husband'. Such women were Gāndhārī who bound her eyes when she heard that the husband chosen for her was blind, Mādri who burnt herself on the funeral pyre of her husband, Sitā, Draupadī, Damayantī and Sāvitrī who shared the exile of their husbands. In order to beget children as heirs to the husband women had to submit not only to the brother of their husband but to any brahmin appointed by their husband or the mother-in-law.

In this household the daughter's position was not at all enviable. She was freely employed for the sake of propitiating brahmins or for contracting political friendships. Kuntī describes how she was given away to king Kuntibhoja in her childhood and driven away by her father-in-law Bhīṣma. (I blame my father. He gave me to Kuntibhoja as a cunning man gives away wealth for his own purposes. As a small girl, playing with you with a ball was I handed over to Kuntibhoja. What is the use of this life to me who was so injured by the father and the fathers-in-law? (5.88.61-63). Ambā mourns in similar words *dhig*

Bhīṣmaṁ dhik ca me maṇḍam pitaram mūdhacetasaṁ/yeṇāhaṁ vīryasūlkeṇa paṇyastriṇat praveritā 5.173.5 "Woe to my father who disposed of me like an infamous woman by a bravery test" (The bravest may have my daughter). This exclamation also places the Svayamvara institute in its proper perspective. Except Damayantī and Sāvitrī no woman in the epic stories has had a free choice of mate. Draupadī was to be given to a man who proved himself to be superior to all others in archery and strength as Drupada wished to gain a powerful ally against Drona. Dharma tells as much to Drupada when he began anxiously to enquire after the social status of the hero who had won Draupadī.

*pradiṣṭasūlkā Drupadena rājñā sūnena vīreṇa tathānuvṛttā
na tatra varṇeṣu kṛtā vīvakṣā na jīvaśilpe na kule na gotre.* 1.185.23

King Drupada had set a definite test for this girl. She was won accordingly by this hero. No questions were asked about the caste, or the mode of living or the family or the name of the suitor. Mādhavī, the daughter of king Yayāti, was hawked from king to king for the sake of horses. Śarmiṣṭhā had to become the maid of Devayānī to save her father's clan. The daughters were thus nothing but pawns in the political game of alliances and counter-alliances. In the case of Bhadrā, the sister of Vāsudeva this is made very clear when Vāsudeva advises Arjuna his friend to abduct her, rather than take the chance of a Svayamvara ceremony where the foolish girl might fancy another man!

*sa tvam Arjuna kalyāṇīm prasahya bhaginīm mama
hara svayamvara hy asvāḥ ko vai veda cikīrṣitam* 1.211.23

No son is given to another in adoption in the stories of the Mahābhārata, while there is one case of a girl being given in adoption. The system of adoption of a son is so universal and well accepted in the Dharmaśāstras that the absence of even a single instance of an adoptive son requires careful examination into the concepts of son-ship and father-ship. In the Ādi Parvan at two places a list of different kinds of sons is given. The first is given by Śakuntalā (1.69.18) who quotes Manu as her authority and enumerates ten sons, five from own wife and five others (one who is found, bought, reared, adopted and begot on another's wife). Manu actually gives twelve kinds of sons and as Śakuntalā's enumeration is vague as regards the first five kinds of sons

it would be better to take Pāṇḍu's list who not only enumerates different kinds of sons but gives a definite order of descending merit or worth :

ime vai bandhudēyēdēḥ ṣaṭ putrā dharmadarśane
 ṣaḍ evēbandhudēyēdēḥ putrās tēn āṣṇu me pṛthe
 svayamjētaḥ praṇītaś ca parikūtaś ca yaḥ sutah
 paunarbhavaś ca kēnīnaḥ svairiṇyēin yaś ca jāyate
 dattaḥ kṛtaḥ kṛtimaś ca upagacchet svayam ca yaḥ
 sahodho jētaretāś ca hīnaya didhṛtaś ca yaḥ 1.11.27-29

“ In the code of Dharma six sons are mentioned as *bandhus* (kin) and inheritors while six others are mentioned who are neither *bandhus* (kin) nor inheritors. Of the first kind are own son, a son born to one's wife by somebody else to whom she is led, a son to one's wife by somebody who is paid for this service, the son of a remarried wife by her first husband, the son born to one's wife in her maidenhood and the son born out of free love (out of wedlock?).” In the latter variety may be included :

- (1) an adopted son—a son given in adoption by his parents,
- (2) a son bought from his parents,
- (3) one who is brought up as a son in the family perhaps an orphan,
- (4) one who has come of himself for protection,
- (5) wife's son who is of an adult age at the time of marriage, and
- (6) one who belongs to a low caste.

This list differs from the one given in Manu. Manu places the following among the first kind of sons :

- (1) a son born of oneself,
- (2) born on one's wife through another,
- (3) an adopted son—given in adoption by the parents of the boy,
- (4) one who is brought up in the household without any formal ceremony of adoption,
- (5) one who is born secretly—through a paramour to one's wife, and

(6) one who is rejected by his natural parents and adopted into one's household.

Of the six inferior varieties are :

- (1) one born to the wife in her maidenhood,
- (2) born to her at the time of her marriage,
- (3) bought,
- (4) the son of a remarried woman,
- (5) one who gives himself for adoption, and
- (6) one who is of a low caste.

In these two lists there are remarkable differences. In Pāṇḍu's list there is one principle for distinguishing the two kinds of sons. All sons born either to oneself or to one's wife are placed in one category, that of a *bandhu* (kin) and *dāyāda* (inheritors), while sons who have been bought etc. are placed in the other category. The adult *sahoḍha* though born to one's wife is rejected because as an adult he is generally recognised as another's son and the last one, though one's son, is rejected as belonging to low caste.

In Manu's list the adopted son and the orphan brought up in one's household are counted among the first six, and the son born to the wife as a maiden and the son of a remarried widow (her first husband's son ?) are rejected from the list.

If we turn from this theoretical list to the actual practice in the epic we find that Pāṇḍu's list is true to the usage depicted in Critical Edition while Manu's conception about sons is not borne out by the epic evidence.

Pāṇḍu and Dhṛtarāṣṭra are examples of *praṇīta* sons (called *kṣetrajā* in Manu's list). An example for a *parikṛīta* son is not found. Karṇa is a *kānīna* son and could have got his share of Pāṇḍu's kingdom if he had so chosen as is clear from Kṛṣṇa's speech in which he asks Karṇa to join the Pāṇḍavas. Aṅgada is the *paunarbhava* son of Sugrīva. And Bhīṣma may be given as an example of a son born of a *Svairīṇī*, Gaṅgā came of her own accord to Śantanu, lived with him without marriage as long as she chose, and deserted him at her sweet will. She was thus a *svairīṇī* and her son was declared as heir to Śantanu.

There is, however, not a single example of a *datta* (formerly adopted) and a *kr̥trima* son inheriting as a son in any of the stories of the Mahābhārata. In fact these sons are definitely rejected by Pāṇḍu as unworthy. The critical text gives two definitions of son-ship. They are as follows :

(a) *bahsrā mātā pituḥ putra, yena jāyeta sa eva saḥ* 1.69.29

The mother is but a leather bag. The son is the father's. The son is really his, who gives him birth.

(b) *bhāryām patiḥ sampraviṣya sa yasmāj jāyate punaḥ j jīyā iliti jāyātān* 1.68.36

The *jāyāhood* of a *jāyā* consists in that a man is reborn again when he enters his wife as her husband.

(2) *pāṇigrāhasya tanayaḥ* 1.98.8

The son is his, who has held the hand (in marriage).

kānīnaś ca sahoḍhaś ca kaṇyāyām yaś ca jāyate

voḍhāram pitaram tasya prāhuḥ 5.138.8

As for one who is born of a maiden, one who was there at the time of the marriage of a girl, and born to her before his marriage(?), his father is the man who marries his mother.

The first may be called a biological theory in which the mother is conceived merely as an incubator whereas the father is the real generator of the child. Through this a man could claim the child of a woman to whom he was not formally married but marriage set up certain social considerations. The woman was the property of the man who married her and in the case of a married woman, the biological theory was no good, so we have the second theory which is purely sociological and where fatherhood is defined as a social convention—in terms of property rights. The progeny of a married woman belonged to her husband. A man was the father of all children born to his wife and so even after the death of a man, a man could get children born to him (who claimed his parentage) through his widow provided she remained his widow. During his own life-time if a man was incapable of procreating children he could command his wife to get children for him from somebody else.

Thus the sons of Śakuntalā, Gaṅgā and Śarmiṣṭhā were sons of their fathers according to the biological definition, and Pāṇḍu, Dhṛtarāstrā, Dharma etc. were sons according to the second definition.

No *datta* or *kṛtrima* (formally adopted or brought up as an orphan) son has inherited his father's fortune in the vast number of cases recorded in the Critical Edition.

Both the lists agree in denying the right of inheritance to a son of a low-caste. Such a son was Vidura and the Epic definitely says that Vidura was debarred from succession as he was *kaṛaṇa* (of a low-caste). 1.102.23.

A very remarkable fact is that there is one case of a daughter given away in a formal, solemn adoption. She was promised the eldest's rights by her adoptive father. (1.104.2 and 3). Though what she gained by this position is not at all evident, she was used by her adoptive father for service to a Brahmin who pleased by her services would give the blessings to the adoptive father (3.287 and 288). Whatever the number of sons, there never was a superfluous son who could be given to another. The ideal state was supposed to be that of being a parent of numerous children. Having no son was the worst evil that could befall a man. Having but one son was almost as bad having none. The fears and tribulations of the parents of an only son are tellingly depicted in the story of Jantu (3.127.5-12): The patriarchal joint family oscillated between two extremes—both leading to probable extinction. One was of having but one son on whom rested the duty of continuation of the line, the other was having many sons leading to fraternal jealousies and a war ending in total destruction of the clan. But wherever the ruling patriarch was strong he could curb his brothers and his own children and theirs, and so for the sake of the fighting strength of the clan a numerous male progeny was always desired. The epic data do not show that any father would willingly give a son to another. How are we then to explain the institution of adopting a son which has become a very important part of the Hindu family organisation? The gradual disappearance of levirate and Niyoga customs due to moral concepts about the post-nuptial loyalty of the wife, and the absence of *kānina* children owing to insistence on the pre-nuptial chastity of the bride may be pointed out as the causes for the sudden

flowering of the *dattaka* system.⁷ May not culture-contact be the reason of the adoption of this system by the Indo-Aryans? Among the classical people the Greeks had a kind of adoption but the Roman customs of adoption are very similar to those in post-epic India.⁸ Among the Iranians there was adoption by the priests, of a person to the sonship of the deceased in order to secure the death offerings which ensure heaven for a man. Otherwise a man is nominated from the nearest kin to look after the property and is said to be the adopted son.⁹ But this adoption also takes place after the death of a man and so is not to be compared with the Hindu law of *dattaka*. In other Indo-European communities there was no law of adoption.¹⁰ Adoption after the Roman model was first incorporated into his Code by Napoleon and later other European countries also followed suit.¹² Adoption was known in Crete and Babylonia¹¹ and the Semitic world.¹³ It was also known in China.¹⁴ At the present time it is known to almost all primitive communities.¹⁵ It is practised almost universally, almost without rhyme or reason by the people of New Guinea, Torres Straits and Polynesia.¹⁶ One of the reasons of this apparent wholesale transfer of children from one parent to another is given by Sumner as the prevailing matriarchy which separated the children from the father. Generally a man induced his sister to adopt his children so that the property remained in the hands of his own children, if the nephews were adopted by their own aunt.¹⁷ Khassis adopt a girl if the family is threatened with

⁷ Most of the Smritis mention this custom as unworthy. cf. *Jolly, Recht and Sitta* pp. 29, 70-71.

⁸ VINOGRADOV, *Historical Jurisprudence*. Vol....pp....

⁹ *Encyclopædia of Religion and Ethics*, Vol. 5, Article of "Family" p. 746.

¹⁰ *Encyclopædia of Social Science*, Vol. 1, Article on "Adoption," p. 461 and VINOGRADOV vol...., pp....

¹¹ *Encyclopædia of Religion and Ethics*, Article on Adoption.

¹² *Encyclopædia of Religion and Ethics*, n. 722.

¹³ *Encyclopædia of Religion and Ethics*, p. 724-5.

¹⁴ *Encyclopædia of Religion and Ethics*, p. 732.

¹⁵ SUMNER, KELLER AND DAVIE, Vol. III, 1923-26.

¹⁶ SUMNER KELLER AND DAVIE, Vol. III, 1923-26. p. 1924.

W. H. R. RIVERS, *Social Organisation* (1932), p. 186.

R. H. LOWIE, *Primitive Society*, p. 74.

¹⁷ SUMNER KELLER AND DAVIE, Vol. III, 1923-26.

extinction.¹⁸ In Travancore also where descent is reckoned through the female line a girl was adopted in order to avoid the extinction of the royal line.¹⁹

It will be seen thus that adoption is known all over the world at the present time and so the negative evidence of the epic which has not recorded a single case of the succession of an adopted son or even a single case of formal adoption is significant. The European data, and the classical data as also the Iranian data point to a late adoption of this custom by the people of Indo-European cultures.

Another interesting system which affects inheritance and succession is the system by which the son of a daughter was appointed as heir. The epic evidence is interesting. It has only two cases of *putrikā-putra*. Prajāpati—the father of all creation—lost his one thousand sons and so proclaimed his fifty daughters as *putrikās*. They were given in marriage to various sages and to the moon, etc., and gave birth to all the living creatures of this earth.²⁰ This particular conception of a *putrikā* daughter is entirely unknown to later texts. A man is supposed to destine *one* of his daughters as the mother of his heir, but is not supposed to make all his daughters into *putrikās*. The above myth fathers the world on Prajāpati through his daughters and not through his sons. In the same way without even mentioning the word *putrikā* all Kṣatriyas are declared as belonging to the solar line through being Manu's progeny. Manu was the son of the Solar Deity. He had sons and daughters. His daughter Ilā was the ancestress of all the Kaurava kings and yet they are placed on a basis of equality with the Ikṣvāku kings who are born of the son of Manu. The epic does not even give the name of the husband of Ilā but says she was both father and mother to her son.²¹ The other example of a *putrikā*—son is the son of Arjuna born through Citrāṅgadā the daughter of the king of Maṇalūrapura. The place was somewhere in the south-eastern part of India and though a very elaborate explanation is given why Citrāṅgadā was made a *putrikā*, the location

¹⁸ GURDON, *The Khasis*, p. 85.

¹⁹ E. THURSTON, *Castes and Tribes of Southern India*, Vol. IV, p. 82..

²⁰ 1.60.11

²¹ 1.70.16: Pururavas tato vidvan Itāyāni samapadyata 1.
sā vai tasyābhavan mātā pitā ceti hi naḥ śrutam 11.

of her father's kingdom points out to matrilocal residence of the child as a southern—or non-Indo-Āryan custom. Apart from Manu's daughter there is another example of a son getting the kingdom of his mother's father but there is no mention of the word *putrikā*. Thus Pratīpa's second son Bālīka inherits his mother's father's kingdom and leaves his father's kingdom to his younger brother Śantanu. Again in deciding this second much-debated point in Hindu law-books it is necessary to prepare a case book citing all clear and unambiguous reported cases of *putrikā-putras* before it can be decided whether this institution was also not borrowed from matriarchal and matrilocal people among whom the epic Indo-Aryans lived and with whom they sometimes contracted marriages.

The incorporation of the *dattakā* system and the *putrikā-putra* system changed the whole conception of fathership and sonship as defined in the epic as either a biological relationship or as a property relationship through wife's possession. The *dattakā* and *putrikā-putra* modes of sonship do involve ideas of property rights. The one is the assertion of the ruling male of his right to adopt a stranger. (The epic only recognises the right of disinheritance of an own son). The other is the right of a father over his daughter. The *dattakā* system especially struck a blow at the customs of Niyoga and levirate and threatened the right of the collateral branches to inheritance if the senior branch became extinct.

The customs of Niyoga and levirate, implying a certain approach to polyandrous unions are found in the epic. The story of Brhaspatī and Mamatā shows that a younger brother had access to the elder brother's wife. The evidence is, however, rather confusing. Dharmarājā's speech to Arjuna where the junior levirate is implied, is as follows 1.205.27.

Guror anupraveśo hi nopaghāto yavīyasaḥ . .etc.

The word *anupraveśa* here means not just following but the exercise of marital rights after somebody else. The same word is used when Satyawatī tells her daughter-in-law "Kausalyā : you have a husband's brother. He will come to you today".

Kausalye devaras te'sti so'dya tvānupravekṣyati 1.100.2.

Also the objection raised by Draupadī's brother Dhṛṣṭadyumna indirectly lends support to junior levirate (1.188.10). "How can the elder brother, knowing dharma, go with the wife of a younger?"

*yavīyasaḥ katham bhāryām jyeṣṭhō bhṛātā dvijaṛṣabha |
brahman samabhiyarteta sadvṛttaḥ saṁs tapollhana. ||*

Accordingly Kṛṣṇa-Draupadī was married to the five brothers one after another, the eldest coming first and the others following according to seniority. But actually when Satyavatī bids Bhīṣma to impregnate his younger brother's wives this is against the sentiment expressed above. (1.97.8,9,10). Also when Kṛṣṇa in order to get Karna on the side of Pāṇdavas tells him, that, not only will he be the king as the eldest of brothers but he will also in due time have Draupadī as his wife in common with the other brothers. (5.138.15.)

śaśhe ca tva tathā kāle Draupady upagamiṣyati.

We may infer that junior levirate was preferred but in certain circumstances even senior levirate was practised. The marriage of Draupadī must be looked upon also as a special modification of this custom of levirate. A man had a right to his elder brother's wife even during the life time of his brother as the story of Brhaspati and Mamatā shows; this right however was exercised without the brother-in-law being the husband of his brother's wife. Nor could the children be claimed as his; however, by undergoing the formal marriage ritual all the brothers could have own sons from the woman. A careful reading of the adhyāyas dealing with Draupadī's marriage convinces us that such a marriage was not an act of divine will—but a political necessity. The five brothers had finished their education and excelled all others. It was the duty of their father (uncle) Dhṛtarāṣṭra to seek out suitable brides for them and to marry them. But such a procedure would have upset all his plans of usurping the throne of the orphaned friendless princes.²²

²² 1.70.16 : Karna's speech 1.194.3. where he compares them to birds which had not yet grown wings.

*ihava vartamānās te samīpe tava pṛthiva
ajātapakṣāḥ sisavaḥ sakitā naiva bāndhitum*

You could not harm them, even when they were here within your reach, like fledglings unable to fly (or without partisans) and were but children.

A marriage always meant a political alliance, and the marriages of the five princes into five ruling houses would have gained them such strong partisans that Dhṛtarāṣṭra would not have been able to carry his designs, nor could Duryodhana have conceived the plan of their utter destruction in the combustible house at Vārāṇavata. So the five brothers were as good as exiled to a distant part of the kingdom (1.130.20 and 131.11 Dharma, knowing the purpose of his uncle and yet aware of his helplessness consented to go.) An attempt was made on their life. And things looked so black that Dharma with his brothers and mother decided to live *incognito*. None of the brothers were married, their best friends, the house of the Yādavas thought them to be dead when suddenly Arjuna had the good fortune to win Draupadī. While in this temporary eclipse they had entered a pact of always standing together and sharing everything, whoever it was that won it. Draupadī was won by Arjuna with the help of Bhīma. Through Draupadī an opportunity was offered to make their claims on the Hāstinapura kingdom good, with the backing of the Somakas (Draupadī's clan) and Yādavas (their mother's clan). If Draupadī had been married to Arjuna alone it would have led to mutual jealousies and their one tower of strength, their unity, would have been broken. Dharma sees this clearly and promises that Draupadī should become the wife of all. He first offered that Arjuna should marry her, but Arjuna declined as the marriage of a younger brother with two elders unmarried would be committing a great sin and he left the matter in the hands of Dharma. The few verses that follow are very clear. (1.182.11 to 15.) They seeing Kṛṣṇā standing there, looked at each other and loved her in their hearts. Love was born in them when they sighted Draupadī. Then Yudhiṣṭhira knowing what was going on in their minds and remembering Vyāsa's speech, said to his brothers being afraid of quarrels among themselves (*mithobhedabhayāt*)—"Draupadī shall become the wife of us all". Then later on in order to avoid the taboo of an elder having marital rights over the younger brother's wife he ordered that Draupadī was to be married to him first and then to the others in the order of seniority. That Dharma's calculations were right is proved by the speech of Karna. Duryodhana wanted to send clever spies in order to create a quarrel among the brothers. Karna sees the futility of this suggestion and answers, "It is not possible to create a disagreement between them. Those who love one wife cannot be divided. Neither is it possible to make Kṛṣṇā dissatisfied with them. Women covet to be

the wife of many husbands. This she has attained and so she cannot be divided from them.”²³ She had married them when they were miserable and now that they are prosperous she will certainly not leave them. Levirate is quite a well known social institution in Africa. Polyandry is not known as an established social institution in that region and yet a temporary polyandry is practised in circumstances very similar to those of the Pāṇḍava princes. LOWIE writes,²⁴ “Wahuma polyandry . . . , while legitimate, is not a dominant institution but occurs under special circumstances and for a restricted period. When a man is too poor to buy a wife alone, he is assisted by his brothers and these share his marital rights until the woman’s pregnancy.” We find that it was usual for the elders of a boy to arrange his marriage. Dhṛtarāṣṭra deliberately shirked this duty. The brothers were too poor to obtain a wife each, and with a well established system of levirate a polyandrous marriage was not so much against conceived notions of morality as to offend the public conscience. Dharmarājā by insisting in this kind of marriage and by giving an equal status and share to all brothers avoided the mistake committed by the demon brothers Sunda and Upasunda who shared everything in common but quarrelled for the sole possession of a beautiful woman, and were destroyed.²² Later on when the brothers got a half of the kingdom of Hāstinapura each one married again.

As has already been noted, the system of levirate was known, but actually except for the story of Māmatā and Brhaspati levirate in its usual accepted meaning was not practised by the characters in the story. Niyoga was interpreted as command of an elder person to the widow of a deceased son to beget children from either the brother of the deceased or from a Brahmin. Dīrghatamas gave such sons to the king Bali (1.98.20-33). Vyāsa, though a son of Satyawatī, was not recognised

²³ *parasparaṇa bhedas ca nādhātūn teṣu śakyate
ekasyām ye ratūḥ patnayām ba bhindyanṭe parasparam
na cūpi kṛṣṇā śakyeta tebhyo bhedayitūn paraiḥ
paridyūnān vṛtavatī kīnutādyā mṛjāvataḥ
Ipsitās ca guṇaḥ strīṇāṃ ekasyā bahubhartṛtū
tān ca prāptavātī kṛṣṇā na sū bhedayitūn sukham* 1.194.6,7,8.

²⁴ R. H. LOWIE, *Primitive Society*, p. 43.

²⁵ A couplet occurring in the Sundarasund story expresses a sentiment which is not expressed anywhere else, nor acted upon by the characters in the story of the epic. The couplet purports to say that the wife of the elder brother is like an elderly person (e.g. mother) to the younger brother, and the wife of the younger is like the daughter-in-law of the elder.

as Śantanu's son by anybody. His existence even was not known till after the death of Śantanu. That Satyawatī deliberately deceived her daughter-in-law is clear from the text. Instead of telling Ambā whom exactly to expect, Satyawatī tells her : Today your husband's brother will come, receive."

Kausalye devaraste'sti so'dya tvā'nu praveksyati |
apramatta pratīksainam nīsithe āgamisyati || 1.100.2

We are told that Ambā, bathed and dressed in beautiful garments, lay on her couch thinking of Bhīṣma and other Kuru heroes.

śvaśrvāś tad vacanam śrutvā Sayānā śayane śubhe |
sā'cintayat tadā Bhīṣman anyānīś ca Kurupuṃgavān || 1.100.3.

By the word *devr* she naturally expected a visit from Bhīṣma, the hero who had carried her away at her marriage festival, or failing Bhīṣma, cousins of Bhīṣma who were born in the joint family. One can imagine her horror when instead of the elegant youths of her household, she was confronted by an unkempt, evil-smelling elderly Brahmin : That this procedure was condemned by others is clear also from the vehement taunt of Śiśupāla in the Sabhā Parvan when he tells Bhīṣma. " You vaunt your celibacy but I think it must be due to impotence. You who call yourself wise, let children be born to you, through your brother's wives, from a stranger while you looked on : " ²⁶ While a brother tracing his descent from the father's side was living an illegitimate brother through the mother should not have been called to perform the duties of a real brother. In the Mahābhārata levirate is thus mentioned as a custom allowed by the society though it was not frequently practised. It had not yet lost its prestige, nor thought of as immoral by any person in the epic. In extreme straits polyandry as a logical sequence of levirate was practised as Draupadī's marriage shows. The Mahābhārata battle is said to have occurred a few years before the beginning of the Kali-age according to the Indian tradition and the custom of levirate is mentioned as *Kalivarjya* (not to be practised in Kali-age) by late commentators on the Dharma-śāstras.

Though the general rule of succession seems to be from father to son certain expressions on different occasions point to another possible

26 *dārayor yasya cānyena miṣṭaḥ prājñamāninah*
tava jātāny apatyāni sajjanācarite pathi

Instead of saying that sister-marriage was preferred it would be better to say that there was no bar against a man marrying sisters, whereas the Kumbhakonam Edition suggests that to the Southerners it was almost compulsory for a man to marry all women who were sisters.

Yet another form of preferential mating is the custom by which cross-cousins are married. Again no verse in the text suggests a special recognition of this relationship, nor is any special preference for such a marriage verbally evinced. Yet if we scrutinize all the examples of recorded marriages we find one which is definitely a cross-cousin marriage and several which are very probably also cross-cousin marriages. The most conspicuous case of cross-cousin marriage which has been made into a cousinly romance by the Southern Recension is the marriage of Arjuna with Subhadrā (Adi Parvan pp. 957-66). From the kings' list given in adhyāya 90 of the Adi Parvan the following marriages appear to be cross-cousin marriages.

(1) Jayatsena married a Vidarbha princess by name Suśuvā. Arācīna, their son also married a Vidarbha princess by name Maryādā.

(2) Vidūratha married Sampriyā, a princess of Magadha. Arugvān, their son, also married a Magadha-princess by name Amrtā.

(3) Pāṇḍu married Mādri. Mādri's son Sahadeva is said to have married a Mādri.

(4) Pāṇḍu married Yādavī Kuntī. Arjuna a son of Kuntī married Yādavī Subhadrā.

(5) Vicitravīrya married two Kūśī princesses. His grandson Bhīma also married a Kaśī-princess (2nd cousin?).

(6) Parikṣit (according to the classificatory terminology the grandson of Sahadeva) married a Mādravatī (2nd cousin?). Parikṣit's grand-step-mother was also a Mādri or Mādravatī.

Thus from a record of over fifty marriages one is definitely a cross-cousin marriage while three others appear to be so, and two are apparently marriages with cross-cousins of the second degree. There was thus no bar against cross-cousin marriage but it was certainly not a preferred type of mating.

We have seen that illegitimacy was never considered a bar to succession. Śarmiṣṭhā and Śakuntalā were not married to Yayāti and Duṣyanta respectively and yet their sons succeeded. The double doctrine of

fathership (fathership by the fact of marriage with the child's mother or fathership through impregnation of a woman by the "seed" of a man) helped in all cases and covered the case of illegitimacy.³⁵ Though the child had equal rights the unmarried mother did not hold the same position as the *dharma-patnī* or the wife wedded according to the usual religious ceremonies. A man had his first wedded wife who held the first position in the polygamous household, while those who were married afterwards held a subordinate position; princesses not properly married came next; then came the concubines and last the female-slaves belonged to an inferior caste and their children were ordinarily barred from succession but formed the loyal and trusted followers of the king. They were the *sūtas* (Sanjaya and Vidura belonged to this category).

The kinship usages generally show examples of extreme deference entailing avoidance of certain relatives on the one hand and privileged familiarity with certain relatives on the other. Sometimes, as is the case with the Marāṭhā people today the names of certain relatives are never uttered, they being addressed in the third person or by onorific titles only. In the critical text, as has already been noted, the word *Āryā* (her honour) is used by Draupadī for her mother-in-law Kuntī. There is, however, no taboo on using the name while speaking to a third person. There is a very strict taboo on direct speech between a woman and her husband's father and uncle, i.e., those whom she may call father-in-law. Neither should a daughter-in-law go uncovered in the presence of her father-in-law. The gravity of Duryodhana's behaviour consisted in making Draupadī face the elders of her husband's house in an open assembly and this fact has been stressed again and again by Draupadī.

Joking with the daughter-in-law is held on a par with adultery (5.37.5).

LOWIE reports..(*Primitive Society*, pp. 85-92) that all the tribes of northern Asia, the Yukaghir, the Ostyak, the Buryat, the Kalmuk, the Altaian Turks and the Kirghiz observe the parent-in-law taboo in this form. A woman is not allowed to have speech with her father-in-law

³⁵. The Hindu law though far more considerate than the legal system of Western Europe to the concubine and the illegitimate children has lost its former liberal spirit by which the illegitimate child was placed absolutely on par with the child of the wife by marriage.

or to sleep in the same tent with him. The Oceanic people, the people of Africa and America show another kind of restriction, i.e. that of avoidance between the son-in-law and the mother-in-law. The father-in-law taboo as found in the *Mahābhārata* is also recorded in unequivocal terms in the *Atharvaveda*. *ye sūryāt parisarpanti snuseva svasurād adhi* 8.6.24.

The people of the Asiatic plain and of northern India have been in contact through the corridors of the Khyber and the Bolan passes since times immemorial and this fact together with the pastoral background of the Vedic Aryans points to a common cultural root for this particular taboo.

There is no explicit record about privileged familiarity between certain relatives, but a very intimate friendship is depicted between Kṛṣṇa, Arjuna and Draupadī. Kṛṣṇa is called the friend (*sakhā*) of Arjuna (e.g. 1.210.5), in numerous places. A picnic entailing revelry and licence is planned only by these two friends (without the other Pāṇḍava brothers) with their wives and concubines on the banks of the Yamunā, where the wives get drunk and where the friends talk of their past deeds of valour and love (1.214.14-28). In another passage Sañjaya describes the behavior of these in their private apartment. Sañjaya describes his visit to Kṛṣṇa and Arjuna in the following words. "Then I entered the inner apartments, to tell my message to the two (Kṛṣṇa and Arjuna). Neither Abhimanyu, nor the younger twins were allowed entrance there, where Kṛṣṇa, Arjuna, Satyabhāmā (Kṛṣṇa's wife) and Draupadī were. The two sat on one couch, drunk with honey-wine. Kṛṣṇa's feet were in Arjuna's lap, while Arjuna rested his feet in the laps of Draupadī and Satyabhāmā."

Arjunotsaṅgagau padau Keśavasyopalakṣaḥ

Arjunasya tu Kṛṣṇāvām Satyayam ca mahātmanah 5.58.3—7.

Draupadī always calls herself "the friend" or *sakhī* of Kṛṣṇa. (*Dhr̥ṣṭadyumnasya bhagini tava Kṛṣṇa priyā sakhī* 5.80.21; also *kathan nu bhārgyā pārthānām tava Kṛṣṇa sakhī vibho* 3.13.53). Just as the relationship of Draupadī and Kṛṣṇa is depicted by the term *sakhī* i.e. friend, so also the relationship of Satyabhāmā and Arjuna must be that of *sakhī* especially in view of the description above. It is worth noting that in the Southern Recension Arjuna is referred to as Satyabhāmā's brother : *bhrātaram tava paśya iti Satyabhāmām adarśayat*.

He showed Arjuna to Satyabhāmā saying "see, there is your brother" (p. 958 Appendix I Ādiparvan). Placing the husband's brother on par with one's own brother is quite foreign to the *mores* of the epic. This discrepancy once again, demonstrates how absolutely essential it is to have critical editions of Sanskrit texts in order to be able to unravel the riddle of the historical process of culture-contact and culture stratifications going on in India for centuries.

The relative ages of husband and wife do not seem to be fixed by tradition. The custom of junior levirate however must have meant living together of a man with his elder brother's wife, who in many cases, might have been older than himself. There are two cases recorded of women destined for an unborn boy. Gaṅgā as a young woman approached Pratīpa, who refused her advances and promised her the hand of his unborn son. Śantanu fulfilled the promise and lived with Gaṅgā, when he came of age. Thus the beloved must have been at least thirty years older than the lover. Gaṅgā did not belong to the Kṣatriya caste, nor to any other caste. She came out of the woods bordering the river Ganges and was supposed to be an incarnation of the river itself. The other case is that of Kārttikeya and Devasenā. Indra rescues Devasenā from a demon and then comes the birth of Kārttikeya, who is married to Devasenā who must have been at least fifteen years older than her husband.

Though nothing is said about the ages of Satyavān and Sāvitrī, the possibility that she was older than her husband is suggested by the fact that she had almost passed the usual age for marriage and as nobody came forward to wed her, the father in despair asked her to seek a husband. She chose Satyavān. Satyavān's subsequent behaviour in the forest, and his weeping for his father and mother when contrasted to Sāvitrī's calm and collected behaviour throughout the crisis, suggests that Sāvitrī might be older than Satyavān.

We have said that side by side with this dominant patriarchal pattern is also depicted in the Epic, in a subsidiary fashion, another type of a household. Jaratkāru, the sister of Vāsuki, the king of the Nāgas was married to a Brahmin named Jaratkāru who lived with her until the conception. Jaratkāru's child Āstika was also brought up in his

maternal uncle's house.³⁶ Arjuna married or lived with another Nāga-princess Ulūpī, who lived in her father's house.³⁷ Citrāṅgadā the daughter of the king of Maṇalūrapura also lived with her father even though she married Arjuna, and her son Babhruvāhana was brought up in her father's house.³⁸ Hiḍimbā the demon wife of Bhīma lived in her ancestral forest and her son Ghaṭotkaca was also brought up in his mother's house.³⁹ Suparṇa Vainateya, the semi-divine eagle also found a Brahmin living with his Niṣādī wife at the latter's house.⁴⁰ Of these matrilocal families, two are said to be Nāgas, one a South Indian, one a Rākṣasa living in a forest and one a Niṣāda. These women married men of Kṣatriya and Brāhmaṇa caste but kept to their father's household. We know definitely that in the case of one (i. e. Babhruvāhana) that the son inherited his maternal grandfather's kingdom. The Nāgas are never mentioned as a forest tribe. They are confused with serpents but appear to be powerful rivals and sometimes allies of the epic Kṣatriyas. In the kings' succession list in the Ādiparvan there is a king Rkṣa who married Jvālā, the daughter of a king Takṣaka and another king Ajamīdha who had a Nāga wife. The long feud carried on between the Pāṇḍavas and Nāgas is well recorded. Arjuna wished to burn Takṣaka in the Khāṇḍava forest. Arjuna's grandson Parīkṣit was bitten by Takṣaka and Janamejaya vowed to kill all Nāgas and conquered Takṣasilā, the city of the Takṣakas. They are not spoken of as agriculturists. They may have been dwelling in forests as the Khāṇḍava episode suggests, but were certainly never placed by the epic heroes in the category of jungle folks like the Niṣādas. No detailed account of the household of these people is given, but the family appears to be constituted on some matriarchal basis. The four people enumerated above may differ among themselves, but in some respects they are all alike and differed from the patriarchal model followed by the epic Kṣatriyas. To understand Indian Social Institutions one must take into account the culture contact from very ancient times between the Vedic Āryans on the one side and the Nāgas, the Niṣādas, the Rākṣasas and the South Indian royal houses on the other.

³⁶ 1.44.21.

³⁷ 1.206.25.

³⁸ 1.207.9.

³⁹ 1.143.36-7.

⁴⁰ 1.25.1-6.

The patriarchal polygamous household of the heroes of the *Mahābhārata* was pastoral in its traditions. These people were no doubt a settled people living in towns but the habits and economy of the ruling class were pastoral. The cultural roots were deeply embedded in pastoralism. Numerous names incorporated the name of horses and cattle. Some of these names were *Vyuṣitāśva*, *Brhadāśva*, *Citrāśva*, *Aśvapati*, *Aśvatthāmā*(?), *Aśvasena*, *Govinda*, *Gopati*, *Vṛṣaparvan*, *Gomukha*, *Vṛṣaṣeṇa*, etc. The highest wealth which a *Kṣatriya* possessed was fine horses and the highest distinction of a *Kṣatriya* was the knowledge of the art of chariot-fighting. The kings kept huge herds of cattle with officers to look after them. The *Gograhaṇa-parvan* as also the *Ghoṣayātra-parvan* show that these herds were located on the periphery of the small kingdoms and were apparently not used for agricultural purposes but for the milk and flesh of the animals. Rare types of horses were demanded either as dowry (3.115.14-6; 5.117.4-6) or as the fees of the Guru (5.117). Farming is mentioned rarely. Mention is also made of cattle being used for driving the plough. Side by side with ploughing is mentioned a mode of living by which grain growing wild was picked and harvested (*uñchavṛtti*). The *viś* or the common people practised farming. The *Kṣatriyas* never practised farming. The Brahmins who lived in forest clearings seem to have begun agriculture on a small scale, but they always depended on domesticated cattle for flesh and milk. A pastoral nobility and an agricultural class of subject peoples supporting it and protected by it is the cultural picture of the *Mahābhārata* age. The Brahmins and *Kṣatriyas* intermarried, living together and sometimes exchanging functions; but the agricultural subjects never shared in this common life. In this respect the cultural parallel is to many African communities, where the warrior races live as rulers, tyrants and protectors of agricultural communities, which are treated more or less as serfs. The warrior races are pastoral people tending large herds of cattle. Such are the fighting Masai of East Africa and the Kaffirs of South Africa. Such also must have been the relation of the Kassites with their Babylonian subjects.

In conclusion it may be said that the kinship usages allowing levirate and polyandry and pointing to a possible collateral succession, fully bear out the logic of the classificatory kinship terminology.

The critical edition, besides giving one version accepted as the oldest extant version, also gives all other versions, making it easy to undertake

studies about the cultural background of the epic story. It is indeed surprising that the critical text, though based on late manuscripts, has presented a story, which shows such an unadulterated culture-pattern as depicted in the paper above.. The versions deviating from the critical text are themselves valuable for a comparative study as they reveal the bias of regional cultures behind the text-modifications.

ICONOGRAPHICAL ELEMENTS IN THE ĀDI PARVA

by

H. D. SANKALIA

Indian iconographical studies have been hitherto based on the Vedas, the epics—*Mahābhārata Rāmāyaṇa*, *Purāṇas*, *Āgamas* and later works on iconography, each source being drawn upon as it served to explain a certain image. In such studies no attempt was made either to trace the development of iconography theoretically from any one source or to trace its development objectively from the evidence of existing monuments in a particular region.

BHATTACHARYA remedied this defect with regard to Buddhist iconography both in its theoretical as well as in its objective aspect to some extent. Under his guidance a similar attempt is being made to study the Jaina iconography.

With regard to Brahmanic iconography the recent studies of Jitendra Nath BANERJEA¹ are welcome, concentrated as they are on the hitherto neglected material, viz. coins and seals and aim to deal exhaustively with the iconographical development through these. So also are the studies of COOMARASWAMY who has selected certain items from icons and sculptures and show their course through early Hindu and Buddhist literature as well as sculpture.

In all these studies the *Mahābhārata* is used as a source now and then, but there has been no attempt to explore it thoroughly in the manner contemplated here. Particularly this seems to be desirable now, when we have its critical text.

In the present study which covers the Ādi Parva only, besides iconographical descriptions of gods and goddesses, their names are also given and discussed, for they are connotative; as also wherever necessary the circumstances under which a given name or certain description of a deity is mentioned. Further these iconographical features, names and incidents are compared with those occurring in early inscriptions, coins and sculptures.

¹ *The Development of Hindu Iconography*, Calcutta University, 1941.

Such a study, it is expected, will throw light not only on the relative age—the iconographical development—of a deity, but also on the subjects like the antiquity of the cult of Gopāla-Kṛṣṇa, and the relative age of the particular Mahābhārata passage, contributing another cultural—or higher text criticism.

The subject deals with the following aspects :

- (1) Invocation to a deity at the beginning of an *adhyāya* or *parva*.
- (2) Names of deities, together with the description of their
 - (a) dress,
 - (b) weapons,
 - (c) other emblems, and
 - (d) *vāhana*.
- (3) The circumstances under which a certain deity's description occurs.

Invocation.—Excepting the invocatory verse at the beginning of the Ādi Parva, where salutations are first offered to Nara, Nārāyaṇa and Sarasvatī, in the Ādi Parva, whenever there is an invocation at the beginning of an *adhyāya* or *parva*, it is usually to Brahmā² and once to Guru Vyāsa³. No doubt a few, North Indian and Devanāgarī Mss. mention Gaṇeśa even before this stanza, but these are regarded late and interpolated⁴ and rightly. For archaeologically considering both the architectural, sculptural and epigraphical evidence, not only the cult, but also ordinary reference to Gaṇeśa is late⁵. So far as Gujarāt-Kāthiawār are concerned, it may be definitely said that Gaṇeśa's images and invocatory references⁶ in inscriptions become common in or about the 10th century A.D. And as far as the writer's knowledge goes, the same may be said about inscriptions of Northern India where as GETTY has pointed out the earliest dated epigraphical invocation to Gaṇeśa (Vināyaka) is in the Ghatiyāla (Jodhpur) inscription of A.D. 862 ^{6a} Perhaps in the South, Gaṇeśa became popular a century or two earlier

² 1.58.3.

³ 1.55.2.

⁴ 1. pp. 3-4.

⁵ Gaṇapati is not even mentioned by Varāhamihira in the list of sects flourishing in or before the 5th-6th century A.D., still BANERJEA, op. cit., 250, says, in spite of any numismatic, sculptural and epigraphic evidence, "that it is presumable that the worship of Gaṇapati-Vināyaka was in vogue....."

⁶ Cf. BANERJEE, "The Temple of Śiva at Bhūmaru," *MAI*, No. 16 (1924), pl. XII (a).

^{6a} Getty, *Gaṇeśa* (1936), 30; and EI, IX, 279.

than in the North. In the inscriptions of the Deccan-Koṅkan he is regularly mentioned from the Śilāhāra times (c. A.D. 900) onwards⁷.

In sculpture, faint traces of the early form of Gaṇeśa have been traced by COOMARASWAMY in Amaravati Sculptures^{7a}, and recently by PARANAVITANE in a frieze of a newly excavated stūpa in Ceylon, called Kantaka Cetinga, of about the 1st-2nd century A.D.^{7b}, but a full-fledged figure occurs only in the 5th century Gupta temple at Bhumara.

This, the definite occurrence of a Gaṇeśa image in a Gupta monument, may well explain the intrusion of Gaṇapati—Vyāsa episode in the North Indian *Mahābhārata* Mss. It is also in the north, as GETTY has observed, that a personal name—Gaṇapati-nāga—appears about the same time in the Allahabad Pillar inscription of Samudra Gupta.

If well-authenticated and dated literary evidence is examined, perhaps a similar conclusion will be drawn regarding the position of Gaṇeśa in literature^{7c}.

The same is not however the case with Śiva or Viṣṇu. Inscriptions from about the 5th century A.D., invoke either Brahmā, Viṣṇu or Śiva. It is about this period that the images and the cult of these gods are very strongly evident. Looking however to the tenor of the entire Ādi Parva, the one invocation to Śiva as Pinākin⁸, relegated to the footnote by the Editor, seems justified.

Names and Description of Deities.

Brahmā : Among his epithets the following are most common :

Prajāpati, Pitāmaha or Sarvapitāmaha, Parameṣṭhi, Sthāṇu, Suraguru⁹, Svayāmbhū.

No iconographical description occurs.

Śiva : It is not a little surprising that among his epithets in the Ādi Parva the epithet Śiva occurs but once and that too not without a variant reading¹⁰, the others are :

(1) Bhaganetrahara, (2) Deveśa, (3) Devadeva, (4) Hara, (5) Īśāna, (6) Īśvara, (7) Kirātarūpa, (8) Mahādeva, (9) Nilakanṭha^{12(?)} (10) Pināki or Pinākadhruk, (11) Sadāśiva¹¹, (12) Śaṅkara, (13) Sthāṇu, (14) Śūlapāṇi, (15) Tripurāri, (16) Tryambaka, and (17) Umāpati.

⁷ According to Mr. A. V. NAIK, who is working on this period in the History Department.

^{7a} BURGESS, *The Stupa at Amaravati*,

^{7b} GETTY, *op. cit.*, 25

^{7c} According to PATIL, Gaṇeśa is not mentioned in the *Vāyu Purāṇa*.

⁸ 1.58.3.

⁹ 1.1.30.

¹⁰ 1.218.31.

¹¹ *Ibid.* (v.1).

¹² 1.16, P. 125, footnote 274.

Some of these are common with those of the Rudras : *Mṛgavyādha*, *Śarva*, *Nirrti*, *Aja-Ekapāda*, *Ahimbudhnya*, *Pināki*, *Dahana*, *Īśvara*, *Kapāli*, *Sthānu*, *Bhava*.¹³ All these may be regarded as names of Śiva. Whereas all these names are significant, epithets No. (1) *Bhaganetra*, (7) *Kirātārūpa* or (*Vāpu*), (9) *Nilakaṇṭha*, (10) *Pināki*, (13) *Sthānu*, (15) *Tripurāri*, (16) *Tryambaka*, and (17) *Umāpati* imply the respective episodes which gave this name to Śiva, though in the *Ādi Parva* only the episodes implied in Nos. 7 and 15 are slightly referred to.

No clear idea of Śiva's anthropomorphic form is given anywhere. But the story of *Tilottamā* tells us how one of the forms of Śiva—*Sthānu*, or *Mahādeva*—came to be four-faced. It was while trying to behold this fair *apsarā* from all quarters that the four faces were created.¹⁴ Forms like *Kirāta*, *Śaṁkara*, *Umāpati*, *Pināki* imply a human form, but no idea can be had of the number of arms.

Most probably the number of arms were only two. And the weapons associated with Śiva are *Śūla* (*Śūlapāṇi*),¹⁵ *triśūla*.¹⁶ (the bow), *Pināka*, (*Pināki*,¹⁷ *Pinākadhṛk*,¹⁸) *kṛtī* (*mahādevakṛtyam*),¹⁹ and the *astras*,²⁰ among which the *Pāśupata* seems to be the chief, called *Mahāstra*.²¹

Early epigraphical evidence tends to give much the same conclusion. And perhaps a number of other epithets of Śiva, implying such episodes as the *Tāṇḍava-nṛtya* will be found to be late. PATIL's studies in inscriptions of the Gupta period (c. A.D. 320–500) reveal that Śiva as *Bhairava* was known, so also his epithets *Hara*, *Īśa*, *Mahādeva*, *Maheśvara*, *Paśupati*, *Śambhu*, *Śiva* (mentioned with his *liṅga*),²² whereas the writer's studies of early inscriptions of the Deccan (c. 100 B.C.—A.D. 300) show that in this period the only epithets of Śiva current were with the prefixes *Śiva* and *Śūla* and *Skanda*. Even the epithet *Śambhu* is absent.

These iconographical features of Śiva differ in one important respect from those of Vedic Rudra. In the *R̥gVeda* Rudra carries a thunderbolt,

¹³ 1.60.1–3.

¹⁴ 1.203.22–6.

¹⁶ According to V. L. 1.218.31.

¹⁸ 1.44.22.

²⁰ 1.225.10, v. 1. Mentions *Pāśupata*.

¹⁵ 1.44.22.

¹⁷ 1.28.20.

¹⁹ 1.2.15.

²¹ 1.109.

²² PATIL, "Gupta Inscriptions and the Purāṇic Tradition," *BDCRI* 2.148 ff.

²³ SANKALIA, "Cultural Significance of Personal Names in Early Inscriptions of the Deccan,"

BDORI 3.351 ff.

didyut, a bow and arrows ; according to the later Vedic texts a bow, arrows, and a bolt or a club.²⁴ There is no reference to the *śūla* or *trīśūla*.

This weapon however is almost always associated with Śiva in early Indian coins. Besides the probable *lingam*-like symbol on an early indigenous coin, the *trīśūla* is found on the coins of the Pāñcāla king Rudragupta, other early coins, and on the coin of Wema Kadphises.²⁵

Similarly the earliest representations of Śiva's anthropomorphic form on the coins from Ujjain and its vicinity,²⁶ on the coins of foreign rulers Gondophares,²⁷ Maues, and the Kushan kings Wema Kadphises²⁸ and Vāsudeva²⁹ are usually two-armed and one-faced. But on certain Ujjain coins,³⁰ as well as the coins of the Kushan kings Kañishka and Huvishka poly-armed and -headed Śiva begins to appear. When so armed the figure carries a number of other objects such as *vajra*, *pāśa*, *ḥamaṇḍalu*, *caḥra*, emblems which were reserved for other gods in an earlier period.

From the comparison of Śiva's iconographical features with the Vedic and the early numismatic it would seem that his Mahābhāratic features would place him somewhere between the two periods.

The rarity of the epithet Śiva in the Ādi Parva cannot be explained at present. For though not applied specifically to Rudra in the ṚgVeda, being applicable to other gods in the sense of 'auspicious', in the later period, early numismatic and epigraphical, as mentioned above, it was of common occurrence as an epithet and as the first part of a personal name.

In the *Vāyu Purāna*, according to the details kindly supplied by PATIL, among the epithets of Brahmā the following are found : Caturmukha, Sahasramūrdhā Kamalagarbhābhah, Puṇḍarikākṣa, Hirṇyagarbha, Ādideva, Prajāpati, Īśvara, Mahādeva, Bhūta, Vibhu, Yajña, Kavi, Kapila, Agni, Svayambhū. He is also called Nārayaṇa, but this epithet has nothing to do with Viṣṇu. Puruṣa, Svayambhū, Hirṇyagarbha and Parameṣṭhī are common epithets, but Pitāmaha is not.

²⁴ MACDONELL, *Vedic Mythology*, 74.

²⁵ BANERJEE, op. cit. 127-9.

²⁶ *Ibid.*, 130.

²⁷ *Ibid.*, 132.

²⁸ *Ibid.*, 135.

²⁹ *Ibid.*, 140.

³⁰ *Ibid.*, 130.

Śiva is often called Bhūtapati, Pinākapāṇi, Kapardin, Kapālahasta, Jaṭin, Daṇḍin, Digvastra, Pāśahasta, Gaṇānām-pati, besides Maheśvara, Śārva, Bhava, Paśupati, Rudra. The epithet Trilocana occurs but it is not very common and the story does not occur. His other epithets are : Guhāvāsī, Mahāyogi, Khēcara, Rajanīcara and Goghna.

The epithets of both Brahmā and Śiva are more varied than those found in the Ādi Parva. If they are found in all the mss. of the Vāyu, then it will be possible to infer a later and fuller development of the iconographical features of Śiva and also a later composition of the *Vāyu*.

VIṢṆU : Viṣṇu has the following epithets :

(1) Amitraghna,³¹ (2) Ananta,³³ (3) Cakrāyudha,³⁴ (4) Dāmodara,³⁵ (5) Govinda,³⁶ (6) Hari,³⁷ (7) Hṛṣīkeśa,³⁸ (8) Janārdana,³⁹ (9) Keśava,⁴⁰ (10) Kṛṣṇa,⁴¹ (11) Madhusūdana,⁴² (12) Mohinī,⁴³ (13) Mādhava,⁴⁴ (14) Nārāyaṇa,⁴⁵ (15) Puruṣottama,⁴⁶ (16) Vāsudeva,⁴⁷ (17) Vaikuṇṭha,⁴⁸ and (18) Yogeśvara.⁴⁹

Of these of frequent occurrence besides Viṣṇu are the epithets Nārāyaṇa, Vāsudeva, and Kṛṣṇa ; less frequent Keśava and Janārdana, whereas Dāmodara, Govinda, Mohinī, Vaikuṇṭha, Yogeśvara are mentioned only once.

Viṣṇu thus appears to be identified with Nārāyaṇa, and Kṛṣṇa, son of Vasudeva and Devakī. However, there are certain epithets, which always come in a group or a particular context. Thus Nara and Nārāyaṇa, Keśava and Rāma (Balabhadra), Nārāyaṇa and Lakṣmī, Kṛṣṇa, with Vāsudeva, Dāśārha, Puruṣottama, Keśava.

³¹ *Ibid.*, 135-7.

³³ 1.16.14.

³⁵ 1.180.17.

³⁷ 1.1.22.

³⁹ 1.197.20 ; 212.21.

⁴¹ 1.50.15 ; 216.25 ; 189.31 ; 2.147 ; 1.124 ; 2.93 ; 1.66.

⁴² 1.191.18 ; 210.3.

⁴⁴ 1.210.4 ; 213.20.

⁴⁵ 1. p. 3 ; 15.11 ; 16.14 and 35 ; 219.15 ; 1.117 ; 17.10-20.

⁴⁶ 1.90.91 ; 58.49-51 ; 199.7.

⁴⁸ 1.58.49-51.

³² 1.58.49-51.

³⁴ 1.16.6.

³⁶ 1.191.19 ; 212.30.

³⁸ *Ibid.*

⁴⁰ 1.2.222 ; 189.31 ; 199.50.

⁴³ 1.16.39.

⁴⁷ 1.1.193 ; 219.15 ; 199.6 ; 1.118-9.

⁴⁹ 1.2.147.

Viṣṇu is identified with Puruṣa, Brahmā, Rta, Iśāna and others,⁵⁰ while there is a reference—implied—to the Virāt-svarūpa of Kṛṣṇa.⁵¹

From purely iconographical point of view we find two "strata", each giving similar details, but important for tracing the development of later Viṣṇuite iconography. In the first "stratum", Nārāyaṇa is said to be wearing Kaustubha jewel on his breast,⁵² or bearing the Sudarśana cakṛa,⁵³ (while Nara had a *divya dhanus*). His full-fledged description is once given, when he was approached by all the gods, after being advised by Brahmā to take birth in this world. Here, as in later iconographical texts, he is described as "*caḥragadāpāṇiḥ pītavāsita-prabhaḥ padmānābhaḥ*....."⁵⁴ "wielding a cakṛa and gadā, and dressed in a yellow garment." Nārāyaṇa got the Garuḍa as his vāhana, and as an emblem on his Dhvajā,⁵⁵ in exchange for the boon of immortality which he gave to Garuḍa.

Identical are Kṛṣṇa's weapons and emblems in the "Mahābhārata-time". As Vāsudeva he obtained the cakṛa, (which had the power to come back as a boomerang), called now Vajranābha, from Agni,⁵⁶ and the Kaumodakī Gadā from Varuṇa.⁵⁷

What is important to observe is that both Nārāyaṇa and Kṛṣṇa Vāsudeva are endowed with two weapons only, implying the possession of two arms or hands. And this is so even in the eleventh *adhyāya* of the Gītā, where Viṣṇu-Kṛṣṇa at Arjuna's request assumes once again his normal form. In this *mānuṣa rūpa* (human form), Kṛṣṇa wore a *ķiriṭa*, and though *caturbhuja* (four-armed), carried only the *gadā* and *caḥra*.⁵⁸ No doubt the *śaṅkha* is mentioned along with the *gadā* and *caḥra* as when Kṛṣṇa goes to Hastināpura,^{58a} or in the Gītā, but it appears that these weapons and the *śaṅkha* were never held together at one time as in later iconographical texts.

Few coins or seals of the early Christian or pre-Christian era bear the figure of Viṣṇu. But coins have been found with the symbol of

50 1.1.20-1.

52 1.16.35.

54 1.58.49-51.

56 1.216.44.

51 1.1.124.

53 1.17.19-20.

55 1.29.16.

57 1.216.25.

58 *Bhagavad Gītā*, ed. by BELVALKAR, 1941, *adhyāya* 11, *śloka* 46.

58a *MBH. Udyoga Parva. (Bhagavadvyāna parva)* 5.81.12.

a *caṭra* or wheel ; of such representations an " elaborate " or a double wheel and lotus symbol appearing on the reverse of a unique coin of the Vṛṣṇi Rājanyagaṇa is regarded by BANERJEE⁵⁹ as the representation of the Sudarśana-cakra of Viṣṇu-Kṛṣṇa. The *caṭra*, though not associated with Viṣṇu in Vedic mythology then, may be the earliest Viṣṇuite symbol ; Garuḍa and the *gadā* coming next, and still later such symbols as *padma*, *śaṅkha* and others which are found in figures from the 5th century onwards.

Among the epithets signifying the various exploits of Viṣṇu, two—Govinda and Dāmodara—are important, regarding the connection of Gokula or Bāla-Kṛṣṇa and the Dvārakā or Mahā(bhārata) Kṛṣṇa. The reading Dāmodara seems to be uniformly used by all Mss., for no variant reading is mentioned. It is applied to Kṛṣṇa when he and Balarāma attend the Draupadī *svayamvara*, and see the Pāṇḍavas (as brāhmaṇas) take away Draupadī in the face of opposition by Kṣatriyas.⁶⁰

The occurrence of the epithet Govinda also stands unchallenged but the first part of the 2nd line is doubtful,⁶¹ whereas in the second case, there is also a reading 'Mādhava'.⁶²

If both these epithets, about which the text is fairly correct and unanimous, really go back to the first or early period (about 300 B.C.) of the composition of the present *Mahābhārata*, then it may be said with some justification that by this time Viṣṇu was being identified both with the Dvārakā and Gokula Kṛṣṇa. While considering the epigraphical references it may be said that the reading 'Govinda' may not be later than the 5th century A.D., for, by this time it was already current,⁶³ whereas, as Dr. KATRE pointed out to the writer, it was regarded as a *saṁjñā-vācaṇa* (personal name) by the Vārttika on Pāṇini. Similar acquaintance with the early life of Kṛṣṇa's brother Balarāma is indicated by the latter's epithets "Vanamālī", "Nīlavāsā".⁶⁴ It is in these words that the *Bhāgavata*, an admittedly later Purāṇa than the *Mahābhārata* describes him, while Balarāma visits Gokula-Vṛndāvana again. His other epithets are Rāma,⁶⁵ and Haladhara⁶⁶ or Halāyudha.⁶⁷

⁵⁹ BANERJEE, op. cit. 145.

⁶⁰ 1.180.17.

⁶² 1.212.30.

⁶⁴ 1.212.20.

⁶⁶ 1.211.7.

⁶¹ 1.191.19.

⁶³ Cf. Pātīl, op. cit. 153.

⁶⁵ 1.2.222 ; 199.50.

⁶⁷ 1.211.7 (Ms. D₃).

The earliest epigraphical mention of the epithet Rāma along with Keśava is in the Nasik inscription of Vāsīṭhiputa Siri-Pulumāyi.

Paraśurāma is mentioned once as Rāma, called " a wielder of weapons " (Śaṣṭrabhṛt) and placed between the Tretā and Dvāpara (yugas).⁶⁸

Twice there is a reference to Rāma Dāśarathi, in which he is described as a great sacrificer along with other former kings ; and a speaker of truth respectively.⁶⁹ This delineation of Rāma as a former great king is more in keeping with his character hinted at by early inscriptions,⁷⁰ than with later purāṇic accounts which bestow divinity on him.

Sūrya has such epithets as Āditya, Arkaja, Bhāskara, Vibhāvasu.⁷¹ Neither in the critical edition nor in the expurgated passages is his full anthropomorphic form described. But Ādityas are associated with *kuṇḍalas*⁷² (a round ear-ornament). Karṇa is born with a *sahaja* (natural) *kaṇvaca* and *kuṇḍalas* ;⁷³ whereas in a passage from D₄ (a mixed Devanāgarī Ms. from Tanjore)⁷⁴ Sūrya tells Kuntī that she will have a son bearing Āditya Kuṇḍalas (*āditya kuṇḍale*) and his impregnable *kaṇvaca*. It is therefore reasonable to assume that Sūrya in his anthropomorphic form was represented with *kuṇḍalas* and a *kaṇvaca*.

Early sculptural evidence may be here noted. Among the North Indian representations, perhaps the earliest figure so far known is from Mathura. It wears a *kaṇvaca*⁷⁵ and long *kuṇḍalas*.

It is interesting to observe that the Mahābhārata Śūrya does not wear high boots, which he does even in the earliest sculptural representation.

Indra and other Vedic gods also appear in the Ādi Parva. But throughout, Indra plays a prominent part, till being worsted first by Garuḍa and then Kṛṣṇa and Arjuna at the time of the Khāṇḍava-dāha.

⁶⁸ 1.2.3.

⁶⁹ 1.1.168 ; 197.6.

⁷⁰ Cf. Nasik Inscription of Vāsīṭhiputa Siri-Pulumāyi, *EI.VIII*, 60 and PATIL, op. cit., appendix p. 44.

⁷¹ 1.1.39-40 mention sons of Vivasvān such as Divasputra, Bhṛṣnu.....Ravi—all of which were later regarded as epithets of Sūrya.

⁷² 1.3.140.

⁷³ 1.104.11.

⁷⁴ Appendix 1.59.5 (p. 908).

⁷⁵ Cf. COOMARASWAMY, *History of Indian and Indonesian Art.*, Fig. 103, ; also SANKALIA, *Archaeology of Gujarat*, p. 163 where all the evidence on Sūrya is discussed.

Among his epithets—(1) Āditya,⁷⁶ (2) Balasūdana,⁷⁷ (3) Devadeveśa,⁷⁸ (4) Harivāhana,⁷⁹ (5) Sahasrākṣa,⁸⁰ (6) Śakra,⁸¹ (7) Vajrapāṇi,⁸² (8) Vajradhara,⁸³ the last is common. Each of these has some cultural and iconographical element. The first-Āditya connects Indra with the Sun and Viṣṇu. The second and the third hint at Indra's pre-Mahābhārata role. The fourth refers to the horse—*vāhana*—of Indra,⁸⁴ namely a bay-horse. Indra became Sahasrākṣa (1000-eyed) while trying to see the apsara Tilottamā. He was called Vajradhara, because he wielded the Vajra.

Though Indra is credited with other weapons—*vāyavya astras* and *śastras*—which he gave to Arjuna in the classical or historical iconography—Brahmanic, Jaina and Buddhist, he occupies a subservient rôle, ministering either to Śiva or Viṣṇu, or a Jaina Tirthaṅkara, or the Buddha. And his two characteristic emblems or marks are his *vajra* and the horse or the elephant. Perhaps the earliest figure of Indra is a Jaina sculpture from the Kanakali *tilā* (mound) at Mathura, where he appears seated in *lalitāsana*, with two hands, one holding the *vajra*,(?)^{84a} and the other peled off.

In Buddhism he appears first in the representations of Buddha's life, and then his personality was perhaps merged into that of Vajrapāṇi.

Figures of Indra on early indigenous coins (bearing the name Indramitra) are not very distinct and hence not useful for iconographical studies. But his theriomorphic and anthropomorphic representations on the coins of Indo-Greek and Scythians in which a conical object—mountain Śvetavata(?)—his mount, the elephant, his weapons—*vajra*, and a long sceptre—as well as a human figure seated and some or all, of the above features not only tally partially as BANERJEA^{84b} has observed with the description of Indra's icon as given in the *Bṛhatsaṃhitā* but also with that given in the *Mahābhārata*.

⁷⁶ 1.1.21.6.

⁷⁷ 1.203.25-6.

⁷⁸ 1.21.6; 1.218.13.

⁷⁹ 1.22.1.

⁸⁰ 1.21.6 and 1.203.25.6.

⁸¹ 1.218.28.

⁸² 1.26.28; 50.12; 158.49.

⁸³ 1.150.16.

⁸⁴ His mount was also an elephant. 1.218.28.

^{84a} SMITH, the *Jaina Stupa, Asin* (MS), XX pl. XCVIII.

^{84b} BANERJEA. *op. cit.*, 164.

Perhaps his earliest (c. A.D. 400.) representation in Brahmanic iconography is on a niche or a caitya-window medallion of the Gupta Śiva temple at Bhumara in Nagod State, Central India. But here he is shown holding a sword(?) with two hands.⁸⁵ So it is not certain whether the figure is of Indra. In the subsequent period even this position he loses, and is rarely prominently represented.

Vedic and other gods are mentioned only once—that too when they turn up to assist Indra in his fight against Kṛṣṇa and Arjuna who allow Agni to burn the Khāṇḍava-vana. In this battle Indra wields the Aśani, (perhaps the same as the Vajra(?)) Yama *kāladaṇḍa*, Dhaneśvara, *śibikā*, Varuṇa, *pāśa*, Śiva (who is mentioned for the first time under this name)⁸⁶ *vicaṅkṛa*,⁸⁷ Aśvinas, *oṣadhī*, Dhātā *dhanu*, Tvaṣṭā, *parvata*, Jaya, *musala*, Mṛtyu *paraśvadha*, Aryamā *parigha*, Mitra *Kṣura-paryanta cakṛa* (a wheel sharp around), Pūṣā, Bhagī, Savitā *Kārmuṇa*, Rudrās, Vasavas, Marutas, Viśvadevā and other gods also joined the battle.⁸⁸

On comparing the features of these gods with their Vedic features we find slight but important deviations. Aryaman, Bhaga, Mitra and Savitr are not endowed with any weapon in the Vedic period,⁸⁹ while in the *Mahābhārata* they carry *parigha*, *kārmuṇa*, *caṅkṛa* and a *kārmuṇa* respectively. Pūṣan in the *Rg Veda* wields a golden spear, and an awl or a goad;⁹⁰ here a *kārmuṇa*. It is said to be characteristic of Tvaṣṭā in that Veda to hold an iron-axe in his hand;⁹¹ now he seizes a *parvata* (mountain). Yama does not seem to have been given any weapon in the *Rg Veda*. However he appears to be identified with death (*mṛtyu*).⁹² In this passage of the *Mahābhārata* Yama and Mṛtyu have a distinct personality; the former carries *kāladaṇḍa*, and the latter *paraśvadham*. These are evidently later features of these gods, nearer to Purāṇic times.

Varuṇa wielded his old Vedic weapon the *pāśa*. Who Jaya is is not clear. Probably he might be one of the door-keeper gods of Viṣṇu.

⁸⁵ BANERJI, "The Temple of Śiva at Bhumara," *MASt*. No. 16 (1924), pl. xiv (c)

⁸⁶ According to G₁ Sadāśiva.

⁸⁷ According to other Mss. *triśūla*, *śūla*, *pinṅka*. See 1.218.31.

⁸⁸ 1.218.27-37.

⁸⁹ Cf. MACDONELL, A. A., *Vedic Mythology*, 1897, 45, 29, 32 respectively.

⁹⁰ *Ibid.*, 35.

⁹¹ *Ibid.*, 116.

⁹² *Ibid.*, 172.

The *Śibikā* of Dhaneśvara or Kubera, if understood in its ordinary meaning as a palanquin, could hardly be a weapon of offence or defence.

The *Āsvins* took up the shining (*dīpyamārā*) *oṣadhī* (medicinal herbs) to fight with (?) or to heal the maimed and the injured as they are credited to have done since *Ṛg-Vedic* times.⁹⁴

Dhanvantari, the physician god who is sometimes depicted in later iconography is mentioned once. He was the last to come out of the *samudramanthana*, carrying *amṛta* in a white (*śveta*) *kaṇḍalu*.⁹⁵

In the same connection is mentioned *Śrī*, also once ; *Lakṣmī* along with *Nara*. The only thing that we learn about her form is that she was dressed in a white (*pāṇḍura*) garment. There is no reference to the lotus flower which she is often shown to hold or stand on or both or to the bathing elephants. Her iconographic representations in *Gaja-Lakṣmī* or simply standing or sitting and holding a lotus are common on early Indian tribal and other indigenous coins from about the second century B.C.,⁹⁶ and also on sculptures from *Sānci* and elsewhere. If, therefore, the entire *Mahābhārata* gives a similar evidence, it might be regarded as pointing to the pre-iconographic stage of development of *Lakṣmī* or *Śrī*.⁹⁷

There are two references to *Sarasvatī*. The first is an invocation to her, in the opening verse of the *parva*.⁹⁸ But here besides calling her a *devī* no details are given. The second reference runs thus “*Kṛṣṇā (Draupadī) babhūva paramapritā nāgai riva sarasvatī*”⁹⁹ A variant reading gives *Nāgair bhogavatī yathā*.¹⁰⁰ Accepting the reading adopted in the text as correct, what can we make out of it? If the *Nāgas* refer to elephants, then the idea implied in the sentence might be the bathing of *Sarasvatī* by the uplifted trunk of an elephant on either side of the goddess. But usually it is the goddess *Śrī-Lakṣmī* who is so pictured in literature and in early coins and sculptures. So far no early figure of *Sarasvatī* is found in this form. But the later North Indian *Viṣṇu* images

⁹³ *Ibid.*, 26.

⁹⁴ *Ibid.*, 51.

⁹⁵ 1.16.37.

⁹⁶ See Banerjea *op. cit.*, 122-4, and COOMARASWAMY, “The Early Indian Iconography,” *Eastern Art*, 1.175 cited by BANERJEA.

⁹⁷ 1. p. 3.

⁹⁸ 1. 206. 3.

⁹⁹ *N₁ V₁* (a Newāri ms.)

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do associate Sarasvatī with Viṣṇu as one of his consorts,¹⁰¹ the other being Śrī. Unless however a definite early Gaja-Sarasvatī form is found, the explanation here given may be regarded as doubtful. Under the circumstances the variant reading is worth a consideration.

The goddess Gaṅgā is described in anthropomorphic form in the Śantanu-Gaṅgā episode.¹⁰² But this description is vague, and of no value in tracing her later iconographical features, where she is shown to stand on a *makara*, and Yamunā on a tortoise.

The conclusions arrived at by the consideration of the names of Viṣṇu, Śiva and other gods and goddesses together with a brief description of their iconographical features and their correlation with early epigraphic, numismatic and sculptural data must be regarded tentative until the whole of the *Mahābhārata* is studied on similar lines. But if these data also turn out to be of an identical or similar nature then it may be said that

- (1) the *Mahābhārata* evidence points to an earlier stage of the evolution of the iconography of Śiva, Viṣṇu and Sūrya, and the goddesses Śrī, Sarasvatī, when these were primarily two-armed and ordinarily one-faced.
- (2) Gaṇapati was still in the distance.
- (3) Viṣṇu had begun to be identified not only with Dvarakī-Kṛṣṇa but with also "Gokula-" or "Gopāla"-Kṛṣṇa.

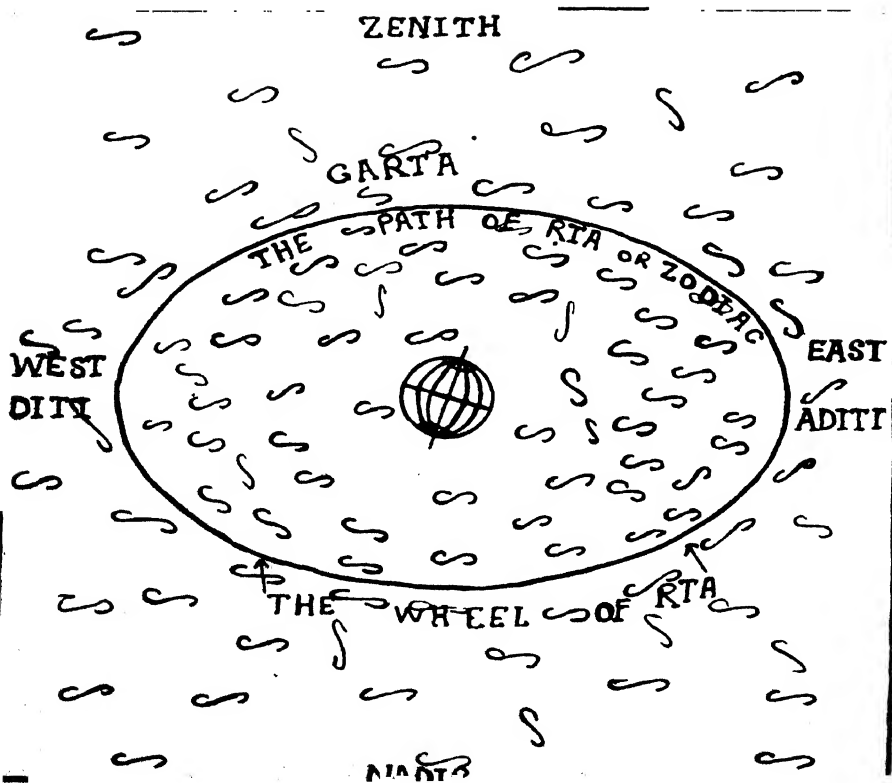
Conversely the part or parts of the *Mahābhārata* text are very likely of early or pre-Christian date.

When, however, the whole of the *Mahābhārata* will be studied on similar lines, and the data compared with the similarly worked out data from other Purāṇas (for the present only slight use is made of PATIL's studies in the *Vāyu Purāṇa*), and from early numismatic, sculptural, and epigraphical sources, then it will be possible not only to explain the development (and the factors which contributed to this development) of Hindu iconography, but the rise and development of various cults, the several names of various deities, and also the relative age of the *Mahābhārata* and the *Purāṇa* passages.

¹⁰¹ Cf. BANERJEA, *op. cit.*, 33.

¹⁰² 1.92.27.

¹⁰³ For the epithet "D-modara" popularly signifies the exploit of "Child Kṛṣṇa" at Gokula.



THE ṚGVEDIC ANTECEDENTS OF THE DHARMA-PĀŚA OF VARUṆA IN THE MAHĀBHĀRATA

By

V. M. APTE

§ (i) So immense is the extent of early literature that has been absorbed in the Mahābhārata, that, inspite of the process of synthesis, revivification and reorientation to which it was subjected, it is hardly surprising that, we should occasionally stumble upon some interesting *fossils* of very ancient notions, strangely preserved in the body of the work. The mythological material of the epic, in particular, will yield a fair harvest to an investigator in this direction because in mythology *sooner* than in any other field, the critical and inquisitive attitude is apt to be relaxed and old ideas are either exaggerated, forgotten or misunderstood by a later generation.

§(ii) While reviewing the Vedic and epic characteristics of Varuṇa, in the course of my mythological studies, I came across the curious expression *dharma-pāśa* ('the noose of Right') associated with Varuṇa in 2.9.*17 and 5.126.46, whereas elsewhere, the *pāśa* of Varuṇa is called *ghora* (3.190.68) and *ugra* (3.221.11). In the search for an explanation of this apparent inconsistency or this double aspect of Varuṇa's *pāśa*, the problem of the origin and development of the *pāśa* conception in Vedic literature had to be investigated into and the results of my inquiry into the earliest (i.e. the ṚgVedic) antecedents of Varuṇa's *pāśas* provided a solution, which it is the object of this paper to present. Before I turn to an examination of this ṚgVedic evidence, a fairly complete account of the *pāśas* in the Mahābhārata must be given.

§(iii) In the Great Epic, the noose or fetter (*pāśa*) is *predominantly*, though not *exclusively* associated with Varuṇa. I say 'not exclusively' because the epic associates it also with Yama and even 'Kāla' and 'Mṛtyu'. The epic is not consistent in its treatment of the latter two

*In the first five Parvans, the references are to the Critical edition ; in the rest, to the Bombay edition of the Mahābhārata.

terms. They seem to be used sometimes of Yama himself, whereas a review of all the passages employing them indicates that each of the three—Yama, Kāla and Mrtyu—has a distinct individuality of his own, the order of superiority being Kāla, Yama and Mrtyu. A consideration of the earliest antecedents and subsequent evolution of the *pāśa* conception reveals that the association of it with Yama is a later development. In the RV, the *pāśa* is almost an exclusive instrument of control and punishment of Varuṇa. Yama there is credited only with a *paḍ-bīśa* (*paḍ-vīśa* in the Vājasaneyi Saṁhitā XXV.38.39) meaning 'footfetter' or 'hobble'. How Yama gradually came to be possessed of a *pāśa* is easily understood. Varuṇa is, in the first place, one of the three individual gods, in whose company Yama is referred to (RV X.14.7) as rejoicing in the offering to the dead, in the world of the Pitṛs. Secondly, when Yama, already an object of dread in the RV, owing to some of his traits [such as death being the path of Yama (RV.X.165.4; cf. also Maitrāyaṇī-Saṁhitā II.5.6; Atharva-veda VI.28.31; 93.1 etc.)] and particularly because of his messengers, came to be ultimately a god of death, his closer association with the terrors of death in the AV. and later mythology helped the identification. What should be more natural, then, that, in the epic, Yama, the god of Death, the King of the *Pitṛs* (3.297.17) should share the possession of a *pāśa* with Varuṇa (his RgVedic cosharer in the offering to the dead, in the world of the *Pitṛs*), particularly as the *pāśa* is the most suitable instrument or contrivance to noose the soul of the dying (Mbh. 11.4.11)? This process was hastened by another circumstance also. The Epic always connects the name of Yama with the sense of 'restraining' (compare *Yamaḥ saṁyamatām aham* in 6.34.29 = Bhagavadgīta X.29 and *prajāsaṁyamano Yamaḥ* in 3.297.66), although this derivation is not borne out by the evidence of the RgVeda, in which the word Yamá which is the name of the god—a twin with Yamī—and which has also the appellative meaning of 'twin' in several passages is quite distinct from the word Yāma (with a different accent) meaning 'rein' or 'guide' in a few places.

§(iv) To turn now to the Mahābhārata account of Varuṇa's *pāśas* :—1.228.31 speaks of the *pāśas* of Varuṇa, and the *Kāladanḍa* of Yama. In 8.42.36, Karṇa tells Śalya that he is not afraid of even Varuṇa, the bearer of the *pāśa* or of the son of Vivasvat (Yama) the bearer of the rod (*danḍa*). Both these passages which refer to the *danḍa* as the

characteristic weapon of Yama and as parallel to the *pāśa* of Varuṇa bear out the view advanced above that the association of the *pāśa* with Yama is a later development. 3.190.68 refers to Varuṇa who could kill with horrible (*ghora*) nooses (or fetters), a sinner (even a king) who offended a priest. 3.221.11 tells us that Varuṇa carries his peculiar weapon, the formidable (*ugra*) noose, even while moving in a procession. In 12.95.20cd, and 21ab, Bhīṣma tells Yudhisthira that 'the sinful sceptic, though claimed by death thinks himself immortal, though bound with the fetters (*pāśas*) of Varuṇa and puffed up like a (puffed out) skin does not keep to (the path of) good deeds (or merit)'. Here the stuff of which the fetters of Varuṇa are made, is hinted at as non-material or unearthly, exactly as in the RġVeda (as we shall see subsequently). Verse 21ab again reminds us of RV. VII.89.2ab where Varuṇa is implored to be merciful to the suppliant who laments that 'he goes forth puffing like a puffed skin'. It is possible, though not beyond doubt, that dropsy is intended here or in the RV. as a noose (compare the RġVedic verse VII.89.4ab of which this is a parody). The power to control and restrain (*saṁnyama*) is a special attribute of Varuṇa in 2.69.16 where it is said to be typical of Varuṇa and as such worthy of emulation by Yudhisthira, as also in 1.19.6 where the home of Varuṇa is called 'the place of confinement (*bandhanam*) for the Asuras'.

§(v) Whereas however, the picture of Varuṇa's *pāśas* that these passages depict is a grim one, there are two passages (2.9.17; 5.126.46) which associate with Varuṇa a *pāśa* (or *pāśas*) of beneficent aspect—an instrument of healthy restraint. In 2.9.17 we are told that in the *Varunasabhā*, gods, daityas and all, of perfectly correct conduct waited upon the great god Varuṇa 'abiding as they were, within his *dharma-pāśas* (*dharmapāśasthitāḥ*)'. The context clearly shows that the *dharma-pāśas* (or 'bonds or fetters of Right') belong to Varuṇa. In fact for pāda b (*dharma-pāśasthitāḥ sadā*), the critical apparatus provided by the Editor actually records the variant '*dharmapāśa-dharmasādā*' [(they waited upon Varuṇa) 'who always carried the noose of Right'] of manuscripts N₁ V₁ BD and the variant *dharmapāśa-ḥaram sadā* ('carrying always in his hand the noose of Right') of manuscript B₃. In 5.126.46 Varuṇa is described as binding the Daityas and Dānavas handed over 'bound' to him, with his own *pāśas* as well as

with the *dharmā-pāśas*. In both these passages, the function of the *dharmā-pāśas* seems to be merely of a *restraining type* because in 2.9.17, those that abide within the *dharmā-pāśas* are already 'observers of correct conduct' and in 5.126.46, there is no scope for the grim aspect of the *pāśas* as the Daityas are already 'bound' and are merely guarded (not tortured or punished) with the *dharmā-pāśas*.

§(vi) How are the two sets of passages to be reconciled? One explanation would be that Varuṇa is described as wielding two types of *pāśas*—one of beneficent, another of maleficent aspect. Another explanation would be to interpret *dharmā-pāśa* as a metaphor meaning 'restrictions imposed by Right'. This, however, does not suit the second passage, 5.126.48, where the expression is 'having bound them with the *dharmā-pāśas* and with his own *pāśas*.' The correct explanation of this inconsistency is yielded by tracing the earliest antecedents of this *dharmā-pāśa* in the Ṛgveda, where in my view *ṛtá* (the later equivalent of which is *dharman* or *dharma*) represents the *pāśa* of Varuṇa! The question whether this word *ṛtá* (under which name is recognized the Cosmic Order or Law prevailing in nature and which designates 'order' in the moral world as 'right' and in the religious world as 'rite') stands for an abstract conception *right from the beginning* or whether there was a natural basis for this *ṛtá* (which enjoys divine status in the RV.), as for many other RV. gods, will also have to be examined.

THE CONCEPTION OF VARUṆA'S FETTERS IN THE R̥GVEDA.

§1. The fetters of Varuṇa are often mentioned in the R̥gVeda, explicitly as well as implicitly. In fact, the term *pāśa** being used almost exclusively in connection with Varuṇa is distinctive of him. What may be the basis of this awe-inspiring conception which is, in a way, responsible for the character of the god as a moral governor, in which capacity he towers over all the other deities of the R̥gVedic pantheon? BERGAIGNE¹ thinks that the tying up of the waters should explain the origin of the conception. HILLEBRANDT² believes that it follows from the fetters of night. To MACDONELL,³ 'it seems to be sufficiently accounted for by the figurative application of the fetters of criminals to moral guilt.' But if this (last) were a complete explanation of the *pāśa* conception, then the *pāśas* may have been predominantly associated with Varuṇa but not *exclusively*, because the character of all the R̥gVedic gods is moral; they all get angry with the sinner and some of them like Indra punish moral guilt. Besides, there still remains the task of searching for the divine counterpart of the fetters used by earthly kings to punish criminals.

§2. My study of the forty (40) relevant hymns—8 to Varuṇa, 23 to Mitra and Varuṇa and 9 to Indra and Varuṇa and the 423 passages outside these hymns in which Varuṇa is mentioned either alone or along with Mitra or (and) Indra, Aryaman and other deities, has led me to a new conclusion, which throws unexpected light on the term *dharmapāśa* ('the noose of Right') used in the Mahābhārata⁴ for the noose carried by Varuṇa. The evidence for this conclusion I propose to state and examine now.

§3. Passages in which the *pāśas* of Varuṇa are directly mentioned are the following:—I.24.15⁵; 25.21⁶ show that the fetters were three,

*This word is to be read as *pāśa* throughout.

¹ *La Religion Védique*.

² *Vedische Mythologie*.

³ *Vedic Mythology*, 26.

⁴ *Mahābhārata* 2. 9. 17.

⁵ *ūd uttamām varuṇa pāśam asmād āvādhamām vī madhyamām śrathāya | āthā vayām āditya vrate tāvānāgaso āditaye syāma ||* I.24.15.

⁶ *ūd uttamām mumugdhi no vī pāśam madhyamām cṛta āvādhamānti jīvāse ||* I.25.21.

the topmost, the middle one and the lowest one. Interesting is the suggested method of release from this triple *pāśa* which he'd a victim (*Śúnaḥśépa*, for example) in bondage. The topmost one was to be disentangled by being thrown off (the head) upwards, the lowest one by being thrown off (the feet) downwards, but the middle one was to be loosened, slackened or relaxed apart (\sqrt{srath} with *vi*) or untied (\sqrt{crt} with *vi*). The latter root used in the past participle form in II.27.16⁷, where the *pāśas* of the *Ādityas* (of whom *Varuṇa* is the chief) are said to be untied or loosened for (i.e. against) a rogue (*ripáve vícṛttāḥ*) lets us in, on a new aspect of this 'untying' operation which seems to cut both ways! The fetters, it seems, could be loosened around or untied and then spread out as a trap to catch the unwary *ripú* to be tightened round him immediately he is trapped and could be loosened off the victim when he was to be set free! I.24.13⁸ gives us a novel piece of information (not repeated elsewhere) that the *pāśas* were to be removed from a victim (*Śúnaḥśépa*) who was made fast to three (wooden) stocks [*dru-padá*, lit., wooden foot (-stool)]. This must evidently be brought in a line with the above description of the offender or victim, tied up in three places.

This triple character has become such a distinctive trait of *Varuṇa*'s bond, that when in I.163.4⁹ the steed (*árvant*) is credited with three ties (*bándhanāni*) in heaven, three in the waters, and three in the Ocean, he appears (to the poet) to be *Varuṇa*, as it were!

In V.2.7.,¹⁰ there is a prayer to *Agni*: 'You released the bound *Śúnaḥśépa* from the thousand (— fold?) *yúpa* (once), disentangle similarly the *pāśas* from us (now).' The mention of *Śúnaḥśépa* makes it clear that the fetters belong to *Varuṇa* (see I.24.12 and 13) and that *Agni* exercises his good offices on behalf of the victim to secure his release therefrom. In the same way, in VI.74.4¹¹ *Soma* and *Rudra*

⁷ *yú vo māyā abhidrūhe yajatrāḥ pāśā ādityā ripáve vícṛttāḥ |*
āśvíva tām áti yeṣāṁ ráthenārisiṣṭā uṣāv ā śárman syāma || II.27.16.

⁸ *śúnaḥśépo hy áhvad grbhitás triṣv ādityāṁ drupadeṣu baddháh |*
ávuiṇaṁ r'já váruṇaḥ sasṛjyād vidvām ádabdhó ví mumukṣu pāśān || I.24.13.

⁹ *trīṇi ta āhur divi bándhanāni trīṇy apsú trīṇy antáh samudré |*
utéva me váruṇas chantsy arvan yátrā ta āhúḥ paramám janítram || I.163.4.

¹⁰ *súnaś cíc chépaṁ níditāṁ sahásrād yúpād amuñco ásamisṭa hí śáh*
vāsmád agne ví mumugdhi pāśān hataś cikṛtva ihá iú niśádyá || V.2.7.

¹¹ *or nō muñcataṁ váruṇasya pāśād |* VI.74.4^c.

are invoked to release the suppliants from the *pāśas* of Varuṇa. X.85.24^{ab12} gives the very important piece of information that even Sūryā—the divine prototype of the human bride—was subject to Varuṇa's bonds, clasped on her by Savitr. The exalted character of the Imperial Varuṇa could not have been brought out more vividly by any explicit statement to that effect than by this delegation of the mechanical duties connected with the administration of his fetters to other deities—the clasping of them, for example, to Savitr (X.85.24^{ab}), and the unclasping of them to Agni (V.2.7) or to Soma and Rudra (VI.74.4).

Finally VII.65.3^{a13} tells us that Mitra and Varuṇa possess numerous *pāśas*. In spite of the tendency of the RġVedic poets to be so engrossed in the praise of the particular deity they happen to be invoking as to exaggerate his attributes to the point of inconsistency—a tendency that gave rise to the theory originated by Max MÜLLER and named by him as Henotheism ('the belief in individual gods alternately regarded as the highest')—the fact is not without significance that there is hardly a *pāśa*-passage addressed to a deity, in which Varuṇa is completely out of the picture!

§4. But the value of these *pāśa*-passages would be considerably discounted, if the use of the word *pāśa* were an adventitious, though exclusive feature of the god. Such it is not and herein lies the significance of these passages. They throw into relief Varuṇa's character as the Binder, Restrainer, Regulator, or Controller, *par excellence* among the gods [compare X.66.2,* for example, where the gods are said to be aroused by Indra (*Índra-prasūtāh*) but controlled by Varuṇa (*Váruṇa-praśiṣṭāh*)]. It should be a natural expectation then that not merely the word *pāśa* but the *idea of restraint* behind it expressed through a variety of other words, is found associated with Varuṇa in as many diverse forms. This expectation is fully realised in the RġVeda. Words expressive of 'restraint' and almost synonymous with *pāśa*, so used are, *setí*, *raśmán* (or *bāhú*?), *syūman*, *abhīsu*, *raśanā* *dāman*, *raśmí*, *setu*, *bāndhana* etc. There are also a number of passages which by implication or suggestion emphasize this peculiar rôle of Varuṇa as the (All-) Binder.* We will consider all these passages now.

¹² *prá tvā muñcāmi váruṇasya pāśād yéna tvābadhnāt savitā suśévaḥ* | X.85.24^{ab}.

¹³ See Footnote No. 139 for the text and section 28 for a discussion of the verse.

In VII.84.2,¹⁴ Mitra and Varuṇa are said to bind (*sinīthāh* from √*si*, to bind) with bonds (*seiṭbhiḥ*, from the same root), not made of ropes. So the stuff of which the bonds are made is not earthly. What this stuff is, it is the purpose of this paper to find out.

VI.67.1^{cd}¹⁵ refers to the Matchless Two, Mitra and Varuṇa, the most efficient controllers (*yāmiṣṭhā*) who pull in or control (*sām*..... *yamátuḥ*) the people with their own arms (*bāhúbhiḥ svaiḥ*) as if with a cord (*raśmā*, I.S.). The importance of this passage for ascertaining the nature of the controlling apparatus used by the All-Controller (or—Controllers) cannot be over-estimated: The root *yam* with *sām* is used in the sense 'to pull in (the reins)', in I.144.3d; the word *yāma*(n.) itself is used in the sense of 'rein' in V.61.2^d. The verse thus vividly portrays the Two as pulling in the people with the reins of their arms which thus serve for *pāśas* as it were, in a good sense. A similar use of their arms is hinted at in V.64.1^{cd},¹⁶ which speaks of Mitra and Varuṇa, encompassing like two pens (*vrajaḥ*), the sun-hero within their arms. These arms play an important part in the movements of the two gods 'who set themselves in motion (as if on a car) with their arms, in the company of the Sun's rays' (VIII.101.2^{cd}).¹⁷ The act of encompassing or pulling in is very fittingly described as taking place through the movement of the arms.

In I.122.15^{cd},¹⁸ 'the car of Mitra and Varuṇa which shines like the Sun has a long forepart and has straps for hands (*syūṇa-galḥastih*). GELDNER¹⁹ rightly points out that the car itself is compared to the person of the two gods. So then, the comparison of their hands to the straps or cords of the *rātha* is in a line with the suggested comparison of their arms to cords or reins in the preceding section.

¹⁴ *Yuvā rāṣṭrām bṛhád invatī dyaúr yaú setṛbhir arajjúbhiḥ sinīthāh | pári no híḷo váruṇasya vrjyā urúm na índrah kṛṇavad u lokám || VII.84.2.*

¹⁵ *sām yā raśméva yamátur yāmiṣṭhā dvā jānān āsamā bāhúbhiḥ svaiḥ VI.67.1^{cd}*

¹⁶ *Váruṇam vo riśādasam ṛcā mitráṁ havāmahe | pári vrajéva bāhvór jaganvāṁsā stūṇaram || V.64.1.*

¹⁷ *tā bāhūtā ná daṛścṇā ratharyataḥ sākām sūryasya raśmibhiḥ || VIII.101.2.^{cd}*

¹⁸ *rātho vām mitrāvaruṇā dirghāpsāḥ syūmagabhastinh sūro nṛdyaut || I.122.15^{cd}.*

¹⁹ *Der R̥sveda, übersetzt und erklärt.*

The association of 'reins or controlling cords' (*abhīū*) with Mitra and Varuṇa is further seen in VIII.25.24^{ab20} ' (I have attained to) the Two sages (*vīprā*) equipped with reins (*smāḍabhīū*) and provided with a whip (*ḥāsā*). ' The *ḥāsā* is the same as the *āivājanī* to which the column of ore (*ayas*), adorned with gold forming part of the *Kātrām* (dominion) of the two gods and shining in heaven is compared in V.62.7 (see also V.62.6 and 8) and is the lightning. For our purposes, however, it is only necessary to note that the *reins or controlling cords of Mitra and Varuṇa are in action high up in heaven* as in all the other passages. The passage VII.65.3^a speaks of Mitra and Varuṇa as the (personified) Bonds i.e. Binders of *āntta* (*śetu*, from \sqrt{si} , to bind), but it will be considered in detail in another context, along with other *śetu* passages, in a later section.

§5. We now take up passages where there is, according to MACDONELL, 'a figurative application of the fetters of criminals to moral guilt'²¹, through similes where Varuṇa is prayed to by the supplicant for release from his own sin, misdeeds or evil or Varuṇa's anger as if the latter themselves were the fettering cords or ropes (*dāman*, *raśanā* etc.) of Varuṇa holding him in a vice-like grip. Thus in II.28.5^{a,22} the poet implores Varuṇa to 'slacken sin (*āgas*) off him as if it were a (fettering) rope (*raśanā*)'; in II.28.6²³, 'to disentangle evil (from him) like the halter (*dāman*) from a calf.' In VII.86.5²⁴ we have an exchange or mix-up of the *upamā*-parts or correspondences in the simile e.g. Varuṇa is implored 'to release or set free the misdeeds 'of' (in the sense, 'from') the Vasiṣṭhas (whether committed by themselves or their fathers), as (one should set free) a calf from the halter (*dāman*).

20 *Smāḍabhīū ḥāsāvantā vīprā nāvīṣṭhayā matī |*
mah' vājīnāv ārvantū śacāsanam || VIII.25.24.

21 *Vedic Mythology*, 26.

22 *vī mac chrathāya raśanām icāga ṛdhyāma te varuṇa ḥām ṛtasya | II.28.5^{ab}.*

23 *dāmeva vatsād vī mumugdhy āmho nahī tvād āre nimīṣas canēśe || II.28.6^{cd}.*

24 *āva drugdhāni pītryā ṛjā nō ' va yā vayām cakṛmā tanūbhḥ |*
āva rājan pasutīpaṁ nā tūyūm ṛjā vatsām nā dāmano vasiṣṭham || VII.86.5.

§6. In the following passages, the fetters are not mentioned in so many words either directly or through a simile as belonging to Varuṇa but suggested beyond doubt by the employment of similar verb-forms and a context identical with that in the passages cited in the preceding sections. I.24.14^d,²⁵ and V.85.7^d,²⁶ implore king Varuṇa to shed or let loose (*śísráthah* and *śísrátháh*, respectively) sins off the suppliant (as if they were shackles). The verb-forms : *grbhítāh* [seized (with bonds)] and *mumoktu* ('may he release') in V.12 of I.24²⁷ point to the same bonds by implication in view of the unmistakable *Śúahé'pa* context. In IV.1.4²⁸ Agni is appealed to to calm down the anger of Varuṇa and loosen (*prá mumugdhi*) all malice and hatred from the suppliants. In V.85.8²⁹ the god is implored to discharge or rip apart all offences—consciously or unconsciously committed—as if they were (bonds) ['slackened' or 'entwined', according as we interpret *śithirā*. Whatever the interpretation, our proposition remains unaffected]. In other words 'that which belongs to Varuṇa' (*Varuṇyám*) has come to mean in the RV. 'the *pāśa* of Varuṇa' in the relevant context (where a guilty conscience fears punishment) as for example in X.97.16 :³⁰ 'May they, the Oṣadhīs, release me from (curse) of malediction, from (the scourge) of Varuṇa and from the foot-fetter of Yama, (in fact) from all offence against the gods'

§7. Though thus, some of the passages cited above lend colour to the hypothesis that moral guilt was transformed by poetic fancy and religious fervour into a kind of fetter, there also emerges from a careful consideration of all the inconsistencies of metaphors and figurative applications (pointed out above) the construction that when a person

25 *kṣáyann asmábhyam asura pracetā rájann énámsi śísráthah kṛtāni* || I.24.14^{cd}.

26 *veśám vā nityam varuṇáranam vā yát sim ágas cakṣmā śísráthas tát* || V.85.7^{cd}.

27 *śúnahśépo yám áhvad grbhítāh só asmān rájā váruṇo mumoktu* || I.24.12^{cd}.

28 *tvám no agne váruṇasya vidvān devásya hélo 'va yāsisīthāh |
yājīśho váhñitamah śósucāno vívā dvéśānsi prá mumugdhy asmát* || IV.1.4.

29 *kṛtavāso yád riripúr ná diví yád vā ghā satyám utá yán ná vidmā |
sárvā tá ví śya śithiréva devādhā te syāma varuṇa priyāsah* || V.85.8.

30 *muncāntu ma śopathuād áho varuṇyād utá |
áho yamásya pádbīdsai sárvasmādevakīlbiśat* || X.97.16.

committed a sin, the sin, as it were, stuck to the sinner because both appear to be tied to each other by the fetters of Varuṇa, which were thus something outside the two and not 'identical with sin'.³¹ Thus an offence or guilt was, in a sense, (literally) 'fastened' on the offender or the guilty party, in the language of these R̥gVeda citations where 'separate the (moral) crime from the criminal' or *vice versa* (the criminal from the crime) is almost a refrain!

§8. If the use of the fetters is thus a perfectly natural function of Varuṇa—the All-Binder, we expect that there should be some evidence in the R̥gVeda, pointing to his original character as the 'Unbound' or the 'Bondless One' in a very special sense, nay, in a marked manner in the R̥gVeda. And this expectation is amply fulfilled. "Though other gods, Agni, Savitr̥, Sun, Dawn, Heaven and Earth are petitioned to pardon sin, the notion of releasing from it is much more closely connected with Aditi and her son Varuṇa, whose fetters that bind are characteristic, This notion is nearly allied to the etymology of the name. The word *aditi* is primarily a noun meaning 'unbinding', 'bondlessness', from *di-ti* 'binding, derived from the root *da* 'to bind'. The past passive participle of this verb is employed to describe *śunah'epa* 'bound' (*di-ta*) to the stake (V.2.7). Hence as a goddess Aditi is naturally invoked to release her worshippers like a tied (*baddha*) thief (VIII.67.14). The original unpersonified meaning of 'freedom' seems to survive in a few passages of the RV.³² He further adds³³ (in another context), "The expression *aditeḥ putrāḥ*, sons of Aditi, several times applied to the Ādityas in the RV., may in the pre-Vedic period have simply meant 'sons of freedom' (like *sahasah putrah*, son of strength) as describing a prominent quality of Varuṇa and cognate gods." The conclusion which I draw from these two passages quoted (*italics* being mine) from MACDONELL'S account of Aditi (*a conclusion not drawn by that scholar*, however) is the following :—The epithet *Āditya* applied to Varuṇa and the expression '*aditeḥ putrah*' (son of Freedom) which he shares with the Adityas, of whom he is the chief, constitute unmistakable

³¹ This is the implication of MACDONELL'S explanation of the *pāśas*, for which see section I.

³² MACDONELL, *Vedic Mythology*, p. 121, l. 15ff.

³³ *Ibid.*, p. 122, l. 40 ff.

evidence of Varuṇa's original character as the 'Unbound' or the 'Bondless One'! His power of releasing from the bonds of physical suffering and moral guilt is perfectly in keeping with, nay, *directly deducible* from the etymological meaning of the epithets *Āditya* or *aditeh putrah* (IV.42.4) so frequently applied to this Chief of the *Ādityas*! Incidentally, I may offer a solution of a puzzle regarding Aditi to which MACDONELL³⁴ has given expression thus: 'But how are we to account for so early a personification of such an abstract idea and in particular for Aditi becoming the mother of the *Ādityas*?' Varuṇa the *Āditya*, is connected with *ṛtá* in a special sense (as I propose to show in a subsequent section); so is *Aditi*. This *ṛtá* (next) has for its natural basis the belt of the Zodiac (the proposition is advanced with the necessary evidence in the sequel in this paper). Now the *devas*, the Lights of heaven, seemed to the ancients to recover their freedom from the clutches of darkness and to begin their bright career from a fixed point in the East, lying on the belt of the Zodiac (*ṛtá*). *This point was Aditi*. No wonder that the luminaries, suddenly emerging thus into freedom and light, (emerging, in other words, *into life itself*) from this fixed point Aditi, received the epithet 'sons of Aditi'. Diti was the exactly opposite point, on the path of the Zodiac in the West, where the Lights went out, being caught in the meshes of darkness. It will thus be not necessary to suppose³⁵ that "the name of Diti as a goddess seems to be merely an antithesis to that of Aditi, formed from the latter to express a positive sense, as *sura*, 'god', was later (by false etymology) evolved from *asura*, 'demon'." (I draw attention to the explanatory figure of the Zodiac added at the end of this paper for further light on my view).

§9. This exclusive and (yet) fundamental trait of Varuṇa's character whereby he appears as a *pāśin* (Binder) is just another version of Varuṇa as the All-Encompasser. It is not the purpose of this paper to establish the writer's conclusions regarding the natural basis of Varuṇa drawn chiefly from the evidence of the RgVeda. I state them briefly here in so far as they tend to explain and emphasize the character of Varuṇa as the 'All-Enveloper', 'the All-Pervader'. This aspect of his character easily explains the towering and pre-eminent position of Varuṇa as

³⁴ Ibid., p. 122, l. 31 ff.

³⁵ Ibid., p. 123, l. 50 ff.

a *samrāj*, when the supreme laws of the physical and moral world are contemplated. In keeping with this aspect, is his rôle, as the custodian of *ṛtá*, which is almost a deity in the *RgVeda*, which like a *pāśa* or wheel circumscribes the Universe, regulates it and keeps it in its place, the physical basis of which is the belt of the Zodiac which no luminary (*deva*) may deviate from (as shown hereafter) and the penalty for transgression whereof, is ensnarement by the shackles of non-*ṛtá* or darkness and death. This is one side or explanation of Varuṇa's all-encompassing character. Another important side or explanation (unfortunately missed by most scholars) is Varuṇa's *overlordship of the Waters which are far more intimately connected with him in the RgVeda* than is generally supposed. The nature of these 'Waters' requires to be carefully investigated into. The researches of WARREN³⁶ and TILAK³⁷ in this connection have not received the attention they deserve. My own conclusions (which must form the subject of a separate paper) in which I agree with the two scholars in so far as the *cosmic character* of the so-called 'Waters' is concerned but in which I differ from Tilak as regards the natural basis of Varuṇa in the *RgVeda* may be briefly indicated here :—

(1) The Waters are both *terrestrial and celestial*. The attributes of the latter in the RV. cannot all be satisfactorily accounted for, on the hypothesis that they are rain-waters.

(2) The release of the Waters and the breaking forth of the Dawn or the emergence of light are described as simultaneous events (I. 164. 51 etc.).

(3) In fact, the movement of the Waters and the spreading forth of the rays of light spring up from the same source and follow the same path (of *ṛtá*) *simultaneously*.

(4) These Waters are described as moved *upwards* by Indra when set free for movement, *simultaneously with the luminaries* after the killing of Vṛtra (II. 15.6 ; I. 80.5, 32 etc.). Their downward movement is, of course, described as for example in VIII.69.11 where the Seven Rivers are said to flow into the jaws of Varuṇa as into a surging abyss or ocean.

³⁶ *Paradise Found* (10th edn.) 1893.

³⁷ *The Arctic Home in the Vedas*, 233-96.

(5) The world is said to have consisted of nothing but undifferentiated Waters in the beginning (X.82.6 ; 129.3). These Waters were coeval with the world (X.30.6).

(6) The cosmic circulation of the celestial Waters and the simultaneity of the free flow of the Waters and the rising of the Dawn are unambiguously stated in the Avesta.³⁸

(7) This theory of the cosmic circulation of the Waters is not peculiar to Indo-Iranian mythology but is found in Greek and Egyptian mythologies also. In other words the celestial waters which pervaded the regions, above, below and around the earth were supposed by the RgVedic poets to be the stuff out of which the Universe was created (X.129.1 and 3 ff.). Tho sum up, the theory propounded by WARREN and TILAK that the (Celestial) Waters or watery vapours [from which the world was supposed to have been created according to the Śatapatha Brāhmaṇa XI.1.6.1 ; Aitareya Br. I.1. and the Mānsmṛti I.9] were envisaged by the RgVedic poets as something like the nebulous mass of matter or the ether of modern scientists, has suffered undeserved neglect.

§10. Unfortunately TILAK did not see the logical conclusion of this theory, namely, that a complete and satisfactory explanation of the RgVedic account of Varuṇa as the All-Pervader or All-Encompasser was thus forthcoming from his rulership of the all-pervading, (ether-like) Cosmic Waters ! Carried a little too far by his Arctic theory, (which, incidentally, will have to be more carefully scrutinized before being brushed aside) he ventures the suggestion that ' Mitra and Varuṇa were originally conceived as two correlated deities, for, according to our theory, they would represent half-year-long light and darkness in the Paradise of the Aryan race.³⁹ This is clearly impossible, because in the RV., Varuṇa, true to his form, as the All-Encompasser rules over both the spheres—that of light as well as darkness, night and day. It is true that certain grand cosmical functions such as those of supporting or establishing heaven and earth or creating the two worlds, producing the sun and placing it in the sky and making a path for it or spreading out the earth,

³⁸ *Vendidad*, XXI 4-5 ; *Yasht* VI.2 and 3 etc.

³⁹ *The Arctic Home in the Vedas*, p. 351.

the sky and the two worlds are attributed to a number of gods without distinction but the following distinctive traits of Varuṇa rule out the whittling down of his dominion to darkness or night however long ! For example, Varuṇa sets in motion the day-star (the Sun) in both directions (*dvitā*) westward by day and eastward at night (VII.86.1^{cd}).⁴⁰ This, indeed, is what is meant by his double dominion (*dvitā. rāṣṭrām*) in IV.42.1^a ⁴¹ and by the reference to him as the doubly Crafty ' (*dvitā māyīn*) in VII.28.4^{cd} ⁴² i.e. one whose occult power (in a good sense) works both above and below the earth in the *realm of light as well as in that of darkness*. If Varuṇa is described as embracing the nights (VIII.41.3) or as exulting in the world of the Pitṛs with Yama (X.14.7), he is also described as 'taking his stand in the firmament and measuring out the earth, using the Sun as a measure' (V.85.5)^{cd} ⁴³. But this is not left to just an inference from the co-ordination of any two separate passages. In VII.88.2^{cd} ⁴⁴, he is expressly stated to be the overlord of both-light (*svār*) and darkness (*āndhaḥ*).

§11. The following passages illustrate the ubiquitous, the omnipresent character of Varuṇa. He is four-faced (*cāturanīkaḥ* in V.48.5^{ab})⁴⁵ i.e. evidently having faces in all directions. He measures off around (*pāri . . mame*) the ends of heaven and earth with a cord (*raśmīnā*, VIII.25.18^{ab})⁴⁶. Here the 'measuring off around' is significant as showing the encircling and encompassing nature of the god.

§12. The paradox of this double or all-embracing presence of Varuṇa and the mysterious power whereby he (and Mitra) can perform miracles like 'binding with bonds not made of rope' (VII.84.2^{ab})⁴⁷ etc. explain why the epithet *māyīn* is chiefly applicable to him among the gods ! Miraculous feats and occult knowledge are attributed to him. The downward opening of the water-skin or barrel bursting through and

⁴⁰ *prā nāḥkam ṛṣvām nunude bṛhāntam dvitā nākṣatram paprāthac cab hūma* || VII.86.1^{cd}.

⁴¹ *māma dvitā rāṣṭrām kṣatriyasya* || IV.42.2a.

⁴² *prāti yac caṣṭe āntam anenā āva dvitā vāruṇo māyī naḥ sāt* || VII.28.4^{cd}.

⁴³ *māneneva tasthivāṁ antārikṣe vī yō mame pṛthivīm sūryeṇa* || V.85.5^{cd}.

⁴⁴ *svār yād āsmann adhipā u āndho ' bhī mā vāpur dṛśāye ninīyāt* || VII.88.2^{cd}.

⁴⁵ *sā jihvāyā cāturanīkaḥ ṛñjate* | V.48.5^a.

⁴⁶ *pāri yō raśmīnā divo ' ntān mame pṛthivyāḥ* | VIII.25.18^{ab}.

⁴⁷ *yaú setṛbhīr arajjúbhīḥ sinīthāḥ* | VII.84.2^b.

upon heaven and earth and the firmament (V.85.3); the spectacle of the streams constantly pouring water into, but yet not inundating even one *samudrá* (V.85.6); his strange association with that bizarre crowd—the scorpion, the crawling creature, the nesting bird and the swelling animal (VII.50.1), the lament of his praiser ‘overtaken by thirst even in the midst of water (VII.89.4), his capacity to see even with closed eye-lids (VII.25.9) are a few of the puzzling facts and feats mentioned of Varuṇa alone or with Mitra. The reference to the secret meeting of Mitra and Varuṇa and their occult power in VII.60.10^{ab}, Varuṇa’s special knowledge of the secret names of the Dawns (VIII.41.5), his appellation ‘mystery sea (*samudra*)’ (VIII.41.8^a) further deepen the atmosphere of mystery and secrecy about Varuṇa! No wonder, the fitting epithet *māyīn* for which the variant, *yakṣin* is once used (in VII.88.6) is chiefly applied to Varuṇa among the gods : VI.48.14 ; VII.28.4 ; X.99.10 ; 147.5.

We have touched upon these aspects of Varuṇa here, as encompassing power, craft (*māyā*) and secrecy are just the attributes we should expect in a *pāśin* (i.e. one who uses a noose). Having thus established that the *pāśa* concept is fundamental to Varuṇa’s character as the Restrainer or All-Binder, we now turn to his intimate connection with *rtá*, so as to lead up to our main proposition regarding the physical basis of that concept.

II. RTÁ, THE SPECIAL CHARGE OF VARUṆA.

§13. The very special relation of Varuṇa to *rtá* is so universally admitted that some more important aspects only of this relationship may be pointed out here. Varuṇa alone or with Mitra and (or) other gods like Aryaman, or with the Ādityas is called *rtāvan*, possessor or lord of *rtá* in I.136.4^d ; 151.4^b ; II.27.4^d ; 28.6^b ; III.56.8^c ; IV.1.2^c ; 42.4^c ; V.65.2^d ; 67.4^b ; VII.49.7^b ; 62.3^b ; 66.13^a ; VIII.25.4^c ; 7^c , 8^a. Furtherers or Prosperers of *rtá* (*rtāvrdh*) is an epithet applied to Mitra and Varuṇa jointly in I.2.8^a ; II.41.4^b ; III.62.18^d ; V.65.2^d ; VII.66.13^a, 19^d. Mitra, Varuṇa and Aditi, in VI.51.3^a, and Mitra and Varuṇa in V.63.1^a ; VII.64.2^a are described as Protectors of *rtá* (*rtásya gopā*). Varuṇa, Mitra and Agni receive the appellation ‘*rtá*-minded’ *rtá-dhītayah*) in VI.141.10^d ; Mitra and Varuṇa are designated the ‘cherishers of *rtá* (*rtá-sprśah*) in V.67.4^a. The title *rtāyān* (acting according to *rtá*) is used of Varuṇa in V.41.1^a ; VII.87.1^c. Varuṇa is called *rtacīt* (intent upon *rtá*) in VII.85.4^a and ‘the leader (net?) of *rtá* in VII.40.4^a,

§14. This special connection, showing as it were that *ṛtá* is the special charge of Varuṇa is indicated in other ways also. *Ṛtá* is expressly stated as *their own* or to belong to Mitra and Varuṇa in I.151.6^a and V.62.1^a. The streams are said to follow Varuṇa's *ṛtá* (II.28.4^{ab}).⁴⁸ Varuṇa says he alone (not Indra) held heaven in the seat of *ṛtá* (IV.42.4 see section 22). Mitra and Varuṇa are said to bring success to *ṛtá* (I.151.3^c). The path of *ṛtá* is said to be their own (VII.65.3^{cd}).⁴⁹ This relationship is almost taken for granted in the *RV.*, so that Agni is said to become Varuṇa when he goes for *ṛtá* (X.8.5^{ab}).⁵⁰ Mitra and Varuṇa are said to proclaim or herald *ṛtá* (I.151.4^{ab} 51; VIII.25.4^c). VI.51.1⁵² is an interesting verse! It expresses first the well-known idea that the Sun is the eye of Mitra and Varuṇa and then adds that it (the Sun) is the bright face of *ṛtá*! This amounts to saying (*poetically though*) that the face of *ṛtá* is the eye of the two gods! That this is no poetic fancy but a hard fact is seen from V.66.1^{cd} 53 where Varuṇa is actually called *ṛtá-peśas*, [i.e. having *ṛtá* as his (ornamented) form].

§15. Varuṇa's distinctive—nay, almost exclusive—epithet *dhr̥tvrata* (one who maintains the *vr̥tás*) is evidence of the same close connection of Varuṇa with *ṛtá*. After a detailed examination verse by verse, of all the *vr̥tá*-passages in the *RV.*, I have shown, in my monograph 'All about *vr̥tá* in the *R̥gVeda*, (B. D. C. R. I. III 4) that if the literary evidence unfolding the semantic evolution of the meanings of the word in the *R̥gVeda* is at all to be relied on and if the hints dropped by the *R̥gVedic* poets themselves regarding the derivation of the word *vr̥tá* [as in I.183.3^b; *ānu vr̥tāni vārtate*, where *vr̥tāni* is the cognate object of the intransitive verb *vrt*, allied to it, etymologically] are to be any guide, then the word must be derived from the root *vrt* ('to proceed', 'turn', 'roll', 'move on', 'turn round' etc.) rather than from 1√*vṛ*, to enclose, cover or guard or from 2√*vṛ* to choose. Thus the primary

48 *ṛtām sīndhavo vāruṇasya ganti* | II.28.4^b.

49 *ṛtāsyā mitrāvāruṇā pathā vām* || VII.65.3^c.

50 *bhūvo vāruṇo yád .tāya vēsi* | X.8.5^b.

51 *ṛtāvānāv ṛtām ā ghoṣatho bṛhāt* | I.151.4^b (b = VIII.25.4^c.)

52 *úd u tyác cákṣur máhi mitráyor ām éti priyām vāruṇayor ádabdham* |
ṛtāsyā súci darśatām ānikām rukmó ná divá údītā vy ádyaut || VI.51.1.

53 *vāruṇāya ṛtápeśase dadhītá práyase mahé* || V.66.1^{cd}.

meaning of the word in the RgVeda and especially in the compound *dhrtávrata* is, ' (fixed) passage, way, (circular) path, (settled) route, (beaten) track, channel or bed.' Now these *vrátas* are, in I.65.2, mentioned as *those* of (i.e. *lying along*) *rtá* (*rtásya vratā*) and must therefore signify ' the paths (of the luminaries) extending along *rtá* (the zodiac, as I propose to show later). What should be more natural than that Varuṇa, the special custodian of *rtá* should be exclusively called the ' Keeper of the *vrátas* or routes laid by him for the luminaries along the *rtá* or in short, *dhrtávrata* ?

III. THE ZODIAC-THE PHYSICAL BASIS OF *RTÁ* (COSMIC ORDER).

§15. What is this *rtá*? MACDONELL gives the following beautiful and succinct account of the meanings⁵⁴ *accepted so far*. " The cosmic order or law prevailing in nature is recognised under the name of *ṛta* (properly the ' course ' of things), which is considered to be under the guardianship of the highest gods. The same word also designates ' order ' in the moral world as truth and ' right ' and in the religious world as sacrifice or ' rite ' ". The last meaning has an Avestan counterpart in ' *aša* ', order, which is one of the many identical terms connected with the ritual, in the RgVeda and the Avesta.

There is no doubt that this is a correct account of the meanings of *rtá*, in a fairly large number of passages in the RV. My proposition is that there is an equally large number of passages there, which betray (what we may call) the primary or the fundamental physical sense of the word ' which represents (in other words) the natural or physical basis of the very abstract (and therefore, very likely, not the original) conception of *rtá* as ' Cosmic- or World-Order '. If the Shining Ones (*devas*, or luminaries like the Sun, Dawn etc.) are described frequently as born in *rtá*, if the path (*páth* or *pathi*), the womb (*yóni*), the seat or abode (*sádana* or *dhāman*), the peak or altitude (*śṛṅga*), the bottom (*budhná*), the cavity or well (*kṣhā*), the ridge or top (*sānu*) and finally the wheel (*cakrá*) of *rtá* are mentioned time and again in the RgVeda, this should normally be accepted as clear and unmistakable evidence of the original *spatial* character of *rtá*, which, from all these indications appears to have described a well-defined figure in the geometry of the RgVedic universe, holding within

⁵⁴ *Vedic Mythology*, II,

it heaven and earth and circumscribing the movements of the luminaries (*devas*) ! There is no reason why we should look upon the use of these terms with *ṛtá* in every passage as just one metaphor heaped on another, upon the devoted head of a purely abstract conception like 'Order', 'Right' or 'Rite'. If it is a recognized principle that in religious thought, generally, the process of development or evolution is from the external, the physical, the concrete, and the natural to the internal, moral, and the abstract, if the Vedic gods are acknowledgedly nearer to the (or *natural*) *phenomena* from which they have developed, than the gods of any other Indo-European people, why should we suppose that the natural order of evolution is suspended in the case of *ṛtá* which has the rank of a divinity in the RV. (as will be shown later) and take for granted that a full-fledged abstraction like *ṛtá* or 'Cosmic Order' has been with the R̥gVedic poets from the beginning? I have examined this problem briefly in my paper 'R̥tá in the R̥gVeda' (*Silver Jubilee Volume A B O R I*) wherein I have arrived at the conclusion that the primary sense of the word appearing alongside of and yet clearly distinguishable (in the R̥gVeda), from its widely accepted secondary sense or senses described above is the physical one; that *ṛtá* or the path of *ṛtá* is the path of the Zodiac or the imaginary belt or zone in the heavens within which the apparent motions of the *devas*—the Sun, Moon and the principal planet are confined and which is dotted by the *Nakṣatras*. The semantic development of the word is exactly parallel to that of the word *devá*:—*deva* = I. The shining One, II. World-ruler, III. God; *ṛtá* = I. The path of the luminaries or the Zodiac, II. World order, III. Right, rite. If I, here, touch upon the main arguments advanced in that paper I do so only to present the *new evidence* on the point, which I have come across since then, in my study of the R̥gVeda.

§16. Though the important part played by *ṛtá* in the RV. is recognized by scholars, the full extent of it does not seem to have been realized ! It has not been sufficiently appreciated that it enjoys the rank of a Divinity in the RV ! The mighty (*mahád*) *ṛtá* figures as an independent deity among deities like Aditi, Dyāvāpṛthivī, Indra, Viṣṇu and Savitr invoked for protection in X.66.4.⁵⁵ In I.137.2^{delg},⁵⁶ we read, 'Also for you

⁵⁵ *áditiṛ dyāvāpṛthivī ṛtám mahád índrávī nū marútaḥ svār bṛhát* | X.66.4^{ab}.

⁵⁶ *utá vām uśáso budhí sākám sūryasya rasmibhiḥ | suto mītrāya varuṇāya pītāye. (g) cāruṛ ṛtāya pītāye* || I.137.2^{delg} (g = IX.17.8^c).

Two, at the awakening of the Dawn, simultaneously with the rays of the Sun, (the Soma juice) is pressed, for Mitra and Varuṇa to drink (from), the delicious (juice) for *ṛta* to drink (from). I.137.2^a is identical with IX.17.8^c where also *ṛtá* similarly receives divine honours. It is impossible to translate *ṛtá* in these two passages as 'sacrifice or rite' or as 'Right'. Similarly I.75.5^b 57 can only be translated, in my opinion, as 'Adore the gods and the lofty *ṛtá*' and not as 'sacrifice to the gods (a sacrifice conforming to) the great *ṛtá* as OLDENBERG⁵⁸ has done or as 'Adore the lofty law (Gesetz) of the gods' as GELDNER⁵⁹ has done, such renderings being due to the non-recognition of the divine status-the godly rank-of *ṛtá* which entitled it to the offering of Soma and sacrificial worship generally. In V.66.5^a and 68.1^c again, the *brhád ṛtám* ranks (in my view) as a deity alongside of Mitra and Varuṇa (see also VII.39.1^d).

§19. Quite a number of gods are said to be born of or produced from *ṛtá*. For example, Agni (I.36.19; 65.10; 144.7; 189.6; II.20.3; III.6.10; VI.13.3), Soma (IX.108.8), the Maruts (III.54.13; V.61.14), Brhaspati (II.23.15) and the Ādityas (VII.66.13) are said to be *ṛtá-jāta* or *ṛtá-prajāta*. In such cases, unless the risk of error was avoided (as is done often by Oldenberg)⁶⁰ by leaving the word untranslated, strange renderings such as 'well-born'⁶¹, 'punctually born',⁶² result! Finally, when the Dawns are called *ṛtá-jāta-satyāḥ*, '(true or) abiding because born of *ṛtá*' in IV.51.7^b, non-recognition of the almost god-like character of *ṛtá* has led to renderings like 'punctually true'⁶³ which leave no trace of *ṛtá* for all practical 'purposes! My contention is that *ṛtá* the birth-place of the gods (as is implied in these epithets) has as strong a title as Aditi to be reckoned as a deity in the *R̥gVeda*!

57 *ṛjā devāṃ ṛtām brhāt* | I.75.5^b.

58 SBE, XLVI, 95.

59 *Der RigVeda, übersetzt und erläutert*, 89.

60 SBE XLVI.

61 SBE XXXII, 357.

62 *Übersetzung* (see Footnote 59 above).

63 *Macdonell A Vedic Reader*, 97.

§20. If *rtá* is (thus) a deity, an investigation into its natural basis becomes as imperative as in the case of any other deity unless it is relegated to the class of deities whose nature is founded on abstraction which (as we saw above) is not necessary. Such an investigation must first be undertaken here as the results thereof will throw light on the basis of the *pāśa*-conception which is the main theme of this paper.

Rtá is derived from the root *r*, to go, with the suffix *ta*, which is employed almost exclusively to form past participles, chiefly with passive but sometimes with intransitive meaning. The more general and original sense of this suffix is preserved in some words used as adjectives or as substantives with concrete meaning such as our *rtá*, which should, therefore primarily mean '(something) gone over (correctly)' or better '(the settled or ordered) course of going', (followed by the luminaries?). It is my contention that this *primary physical* sense is well-preserved in the RV, in the many passages which speak of the path of *rtá*—an undoubted indication of its *spatial* character unless one supposes that it is a figurative application. Such a supposition, though not impossible, is neither necessary nor natural in a large number of passages, which we propose to examine now.

§21. In I.124.3^{cd} 64 (=V.80.4^{cd}), the Dawn clothing herself in lustre, follows correctly the path of *rtá* and does not miss the directions as one who knows (the way)'. 'For the broad (Sun-light), a still broader passage was made manifest—the path of *rtá* was directed with the cords (rays) of *rtá* [I.136.2^{ab} 65: here *rtásya*, though occurring only once can be construed with *pánthāḥ* as well as with *raśmibhiḥ*]. X.80.6^c 66 specifies this path as the *gāndharvī pathyā* or the path of the Gandharvas which shows that it is *high up* in the heavens which alone is the scene of the movements and activity of the Gandharvas. In VIII.22.7^{ab}, 67 the *Aśvins* (matutinal deities) are implored to approach along the paths of *rtá*. I.46.11⁶⁸ is important: 'The path of *rtá* is (now ready) for crossing

64 *rtásya pánthām ánu eti sādhu prajānātiva ná díso mināti* || I.124.3^{cd}. (=V.80.4^{cd}).

65 *ádarsi gātúr uráve várīyasi pánthā rtásya sám ayaṁsta raśmibḥ iḥ* I.136.2^{ab}.

66 *agnír gāndharvīm pathyām rtásyāgnér gāvūtir ghrtā ā niṣattā* || X.80.6^{cd}.

67 *úpa no vājīnīvasū yātām rtásya pathībhiḥ* || VIII.22.7^{ab}.

68 *ábhūd u pāram étave pánthā rtásya sādhyā* |
ádarsi ví srutír divāḥ || I.46.11.

safely to the (other) bank ; the path (lit. Channel) of heaven has become visible' (the context in v. 10 being a description of sunrise). Saramā recovers the cows by going along *rtá* (V.45.7^c)⁶⁹ or by going along the path of *rtá* (V.45.8^d).⁷⁰ The cows are the beams of the Dawn (compare also X.67.5 ; 68.9 and the whole hymn X.108).

In VIII.12.3⁷¹ this path is specified as the one whereon Indra urged on Sindhu and the great waters as if they were cars. Now when it is remembered that Indra places the Sun in the sky for all men to see and simultaneously releases the waters, after killing Vṛtra (I.51.4 ; 52.8), we understand the nature of this path. It is the same that is described in VIII.31.13⁷² as 'easy to traverse' (*sugāh*) having Varuṇa Mitra and Aryamen as guardians and also in II.27.6⁷³ as thornless and *sugāh* and as belonging to the same three deities. It is again, the same path or paths (though not expressly stated as *rtásya*) which the same Three—the Ādityas are said to dig out (*rádanti*) for Sūrya in VII.60.4^{bed}⁷⁴ and which Varuna is said to have dug out (*rádanti*) for Sūrya and the Oceanic floods of rivers (VII.87.1^{ab}).⁷⁵ Finally attention may be drawn to a beautiful and clear description of these paths in I.35.11:⁷⁶ Protect us by (coming along) those time-honoured paths, O Savitṛ, dustless and well-laid in the firmament and easy to traverse (*sugébbih*).

§ It is but natural that the visible overhead part of the path of *rtá* traversed by the luminaries during their bright career by day should be poetically termed 'the straightest path or paths of *rtá*' as in I.79.3^b.⁷⁷ The straight

⁶⁹ *rtám yalī sarāmā gā avindad* || V.45.7^c.

⁷⁰ *rtásya pathā sarāmā vidad gāh* || V.45.8^d.

⁷¹ *yéna síndhum mahír apó ráthām iva pracod'yah* |
pánthām rtásya yátave tám imahe || VIII.12.3.

⁷² *yáthā no mitró aryamā vāruṇah sánti gopāh* |
sugā rtásya pánthāh || VIII.31.13.

⁷³ *sugo hí vo aryaman mitra pánthā anṛkṣaró varuṇa sādhrú ásti* | II.27.6^{ab}.

⁷⁴ *yásmā ādityā ádhvano rádanti mitró aryamā vāruṇah sajósāh* || VII.60.4^{cd}.

⁷⁵ *rádat pathó vāruṇah sūryāya prārṇāmsi samudr'yā nadínām* | VII.87.1^{ab}.

⁷⁶ *yé te pánthāh savitah pūrvyāso 'renāvah súkṛtā antárikṣe* |
tébbhir no adyá pathíbbih sugébbi rákṣā ca no ádhi ca brūhi deva || I.35.11.

⁷⁷ *yád im rtásya páyasā pīyāno náyan rtásya pathíbbi rájīrathah* | I.79.3^{ab}.

sailing ship of *ṛtá* mounted by Soma Pavamāna (IX.89.2^b)⁷⁸ is probably just another version of this very 'straight path of *ṛtá*'. The *naú* or ship boarded by Vasiṣṭha in the company of Varuṇa (VII.88.3^{ab} 79 and 4^{ab})⁸⁰ is very likely this ship of *ṛtá* and may be the same *naú* that Varuṇa abiding in the ocean, knows about (I.25. 7^c)⁸¹.

I do not think that it is possible to brush aside all this evidence of the physical character of the path of *ṛtá* and to say that these details are just subtle metaphorical variations, superimposed on the various aspects of that *very prosaic abstraction*—the Course of Cosmic Order !

§22. Another indication of its *spatial* character, nay, its *exact location* is seen in passages which describe the seat or abode (*sádana*, *sádas*, *dhāman*, or *duroṇá*) of *ṛtá*. The Dawns wake up from the seat of *ṛtá* (IV.51.8)⁸². Varuṇa holds heaven in the seat of *ṛtá* (IV.42.4^b)⁸³. Indra is invoked to come to the rescue (of the suppliant) from the farthest distance, (i.e.) from the seat of *ṛtá* in IV.21.3⁸⁴. The Rudras (i.e. the Maruts or Storm-gods) are said to have prospered or grown great in the abodes of *ṛtá* (in II.34.13^{ab}).⁸⁵ Similarly Varuṇa, Mitra and Aryaman, the sons of Aditi are said to have grown great in the seat (*duroṇé*) of *ṛtá* (VII.60.5^{cd}).⁸⁶ An almost convincing passage is I.123.9⁸⁷ where we are told Uṣas, emerging from out of the Darkness and approaching the appointed place day after day, never misses the habitation (*dhāman*) of *ṛtá*. If this verse is read in the light of (the already quoted) I.124.3^{cd} (=V.80.4^{cd})⁸⁸ where Uṣas

⁷⁸ *rājā síndhūnām avasiṣṭa vāsa ṛtāsya nāvam āruhad rájiṣṭhām.* | IX.89.2^{ab}.

⁷⁹ *ā yád ruhāva váruṇas ca nāvam prá yót samudrām íráyāva mádhyam* | VII.88.3^{ab}.

⁸⁰ *vásiṣṭham ha váruṇo nāvay ādhād íṣim cakāra svápā máhobhiḥ* | VII.88.4^{ab}.

⁸¹ *véda nāváh samudríyah* || I.25.7^c.

⁸² *ṛtāsya devíḥ sádaso budhānā gávām ná sárgā uśaso jarante* || IV.51.8^{cd}.

⁸³ *ahám apó apinvam ukṣamāṇā dhārāyām dívam sádana ṛtāsya* || IV.42.4^{ab}.

⁸⁴ *á yātv índro. . . ávase no marútvān parāváto vā sádanāḍ ṛtāsya* || IV.21.3.

⁸⁵ *té kṣoṇibhir aruṇébhīr nāñjībhi rudrá ṛtāsya sádaneṣu vāvṛdhuḥ* || II.34.13^{ab}.

⁸⁶ *tmá ṛtāsya vāvṛdhur duroṇé śagmāsah putrá áditer ádabdhāḥ* || VII.60.5^{cd}.

⁸⁷ *jānaty áhnaḥ prathamásya nāma śukrá kṛṣṇād ajanīṣṭa svitīcí* |
ṛtāsya yósā ná mināti dhāmāhar-ahar ntṣkṛtām ācārantī || I.123.9.

⁸⁸ *ṛtāsya pánthām ánu eti sādhu prajānatīva ná díso mināti* || I.124.3^{cd}.

(= V.80.4^{cd}).

is described as following the path of *ṛtá* carefully and (thus) not missing the directions, it should follow that the location (*dhāman*) of *ṛtá* is coextensive with the directions! In IV.5.9⁸⁹, the Sun, the glorious face of (heavenly) splendours [(*mahām*), gen. pl. of *máh* = 'splendour (heavenly)'] is said to be shining in the region (*padá*) of *ṛtá*.

§23. The following passages speak of the *yóni* (the womb) of *ṛtá*. 'The (Aṅgiras-) host came forth first in the womb of *ṛtá*...' (IV.1.12^{ab})⁹⁰. If it is now remembered that the Aṅgiras-host, is shown by the context to have rent the mountain and delivered the cows or dawns (compare vv. 13 seqq and IV.2.15 seq.), the location of the womb of *ṛtá* becomes clear. This location is identical with that of the womb of *rájas* and that of the bottom of *máh* [which as I have tried to establish in B. D. C. R. I. II, is a substantive meaning heavenly light], because though *rajas*, *máh* and *ṛtá* are all different, they are all bottomed on the same point in space (lying on the belt of the Zodiac = *ṛtásya yónau*) which marks the era of freedom and illumination for the luminaries and which is their birth-place, as it were. The Sun observes heaven and earth rejoicing in the womb of *ṛtá* (III.54.6^{ab})⁹¹. The same fact is expressed in another way in X.65.8^{ab}.; ⁹² 'Heaven and Earth share a common above in the womb of *ṛtá*. X.8.3^{cd} ⁹³ tells us that the Red Ones (the Dawns) enjoy themselves in the womb of *ṛtá*.

§24. Direct statements regarding the well-defined configuration of *ṛtá* in the geometry of the universe will be found broadcast in the ṚgVeda. The peak or horn (*śṛṅga*) of *ṛtá* is mentioned in VIII.86.5^{ab} ⁹⁴: 'Through (i.e. on the strength of) *ṛtá*, does Savitr work; he extends far and wide the (horn or) peak of *ṛtá*.' This evidently means that Savitr's ever-widening

⁸⁹ *idám u tyán máhi mahām ánikam.*

ṛtásya padé ádhi dídyānam. . . || IV.5.9.

⁹⁰ *prá śárdha ārtā prathamām vipanyāṁ ṛtásya yónā vṛṣabhásya nīle | IV.1.12^{ab}.*

⁹¹ *kavír nṛcákṣā abhí śīm acaṣṭa ṛtásya yónā víghṛte mādanti | III.54.6^{ab}.*

⁹² *ṛtásya yónā kṣayataḥ sámokasā |*

dyāvāprthivī vāruṇāya sāvrate || X.65.8^{ab}.

⁹³ *ásya pátmann áruṣīr áśvabhudhnā ṛtásya yónau tanvò juṣanta || X.8.3^{cd}.*

⁹⁴ *ṛtēna deváh savitā samāyata ṛtásya śṛṅgam urviyā ví paprathe | VIII. 86.5^{ab}.*

circle of light, simultaneously makes the extent of *ṛtá* more and more manifest. The bottom (*budhná*) of *ṛtá* is the place wherefrom the Sun urges forth the Dawns (III.61.7*)⁹⁵ and finally himself advances into heaven and earth. II.28.5^{b96} speaks of the fount or well (or cavity, *khām*) of *ṛtá*. The *Sānu* (surface, top or ridge) of *ṛtá* is spoken of in X.123.2^{c97} and 3^{c98} in a context (: 'Vena shone high up on the top of *ṛtá*') which leaves no doubt as to its physical character.

§25. If the Zodiac is thus the natural basis of the conception of *ṛtá*, its character as a girdle, a belt or a zone should (we expect) be shadowed forth in the RV. A clear indication of its belt-like encircling expanse is seen in the representation of it as a wheel: 'The wheel of *ṛtá* (*ṛtásya cakráṃ*) with its twelve spokes—it never ages—turns round and round heaven; here (i.e. within the wheel), O Agni, the seven-hundred and twenty (720) sons abide in pairs' (I.164.11).⁹⁹ The 12 spokes are naturally the 12 months. The 720 'sons' standing in pairs are the 360 days and 360 nights paired together. An explanation of the term 'sons' applied to them is found in V.85.5.^{ab100} where the Maruts are described thus, 'Like the spokes of a wheel, no one is last; like the days they are born again and again' (*prá-pra jāyante*). The reference in I.25.8^{ab101} to the 12 months 'endowed with (the) progeny (of days and nights)' (*prajāvataḥ māsāḥ*) also throws light. What more natural than that the wheel of the year resulting from the Sun's movements along the Zodiacal belt, completing a whole round or circle in the course of a year of 720 days and nights and 12 months should be described as the wheel of *ṛtá*? This same wheel is described in v. 2¹⁰² of this very hymn as

⁹⁵ *ṛtásya budhná uśasam iṣanyán vīśā mahī ródasī á viveśa* | III.61.7^{ab}.

⁹⁶ *rdhyāma te varuṇa khām ṛtásya* | II.28.5^b.

⁹⁷ *ṛtásya sánāv ádhi viśtápi bhrāt* || X.123.2^c.

⁹⁸ *ṛtásya sánāv ádhi cakramāñāḥ* || X.123.3^c.

⁹⁹ *dvādaśāraṃ nahī táj jāyāya vārvarti cakráṃ pári dyām ṛtásya* |
á putrá agne mithunāso átra saptá śatāni vimśatīś ca tasthuḥ || I.164.11.

¹⁰⁰ *arā ivéd ácaramā áheva prá-pra jāyante ákavā mähobhiḥ* | V.58.5^{ab}.

¹⁰¹ *vēda māso dhṛtāvato dvādaśa prajāvataḥ* | I.25.8^{ab}.

¹⁰² (*saptá yuñjantī*) *rātham ékacakram (éko áśvo vahati saptánāmā)* |
trainābhi cakráṃ ajāram anarvām yātre mā vīśvā bhūuvanādhi tasthūḥ || I.164.2.

constituting a one-wheel chariot with the three naves (i.e. the three seasons) unaging and containing within it all beings (*viśvā bhūvanāni*). Verse 48th¹⁰³ (of the same hymn) also mentions this same wheel with 12 fellys (12 months) and three naves (seasons) and the 360 spokes (lit. pins) that never get loose [here, by 'spokes' the 360 (twenty-four-hour) days are meant]. Verses 13th and 14th¹⁰⁴ also deal with the same theme. Probably this same wheel (of *ṛtá*) is referred to in VII.63.2^{cd}¹⁰⁵, where we are told that the sun rises, rolling round the self-same wheel' and in VI.54.3¹⁰⁶ describing the wheel of Pūṣan. The 'One felly (*pavīh*) of Mitra and Varuṇa rolling on hither' (V.62.2)^d¹⁰⁷ is another version of the wheel of *ṛtá*, the latter being specially associated with the two gods.

§26. I further suspect that the zonal character of *ṛtá* (as the Zodiac) with its two halves—the one above and the other below the earth—apparently meeting each other at two points on opposite sides in the East and the West, have been referred to in the language of poetry, as 'supporting or serving or closing up with each other' in the following passages:—V.62.1^{ab}¹⁰⁸: By *ṛtá* is your *ṛtá* closed, O Mitra and Varuṇa, *there*, where the steeds of the Sun are unyoked (*vimucānti*)'. It does not matter (for our purpose) whether they are taken as unyoked for travel or for rest (there is a difference of opinion among scholars on the point). In my opinion, the upper half of *ṛtá* which meets the lower half at two points—the one in the East, where the luminaries start their bright career of freedom being called Aditi and the exactly opposite point in the West where the luminaries are apparently caught in the bondage of darkness being called diti—is here referred to by *ṛténa*, the lower half by *ṛtám*.

¹⁰³ *dvādaśa pradhayaś cakrām ekaṁ trīṇi nābhyāni ká u tác ciketa |*
tásmiṁ sākāṁ trísatā ná śaṅkavo 'rpitūh śaṣṭir ná calācalāśaḥ || I.164.48.

¹⁰⁴ *pāñcāre cakre parivārtamāne tásminn ā tathur bhūvanāni viśvā |* I.164.13^{ab}.
śanemi cakrām ajāram vi vāvṛte ; tásminn ārpitā bhūvanāni viśvā || I.164.14^a & ^d.

¹⁰⁵ *samānām cakrām paryāvūṛṣan yád etaśo váhati dhūrśu yuktaḥ ||* VII.63.2^{cd}.

¹⁰⁶ *pūṣaś cakrām ná riṣyati ná kśóśo 'va padyate |*
nó asya vyathate pavīh || VI.54.3.

¹⁰⁷ *viśvāh pīnvataḥ svāsarasya dhénā ánu vām ékaḥ pavir ā vavarta ||* V.62.2^{cd}.

¹⁰⁸ *ṛténa ṛtám āpīhitam dhruvām vām sūryasya yātra vimucānty ásvān |* V.62.1^{ab}.

A reference to the figure opposite the last page will make the whole thing clear. I advance this construction of this verse and the following ones merely as a theory for the consideration of scholars, the acceptance or rejection of it having nothing to do with my main proposition in this paper. Let us consider in this light the following passages : V.68.4^{ab} 109 : 'Serving the *rtá* (the upper half ?) with the *rtá* (lower half ?¹⁰⁹), Mitra and Varuṇa attain their powerful might (*dákṣam āśāte*). V.15.2^{ab} 110 : 'By *rtá* (the lower half) they have supported the 'supporting' *rtá* (the upper half, which may be said to support the world by means of the illumination of the Sun who shines only when he goes along it) in the highest heaven' The same might be the implication of phrases like *rténa rtāvīdhā* (I.2.8¹¹¹ ; 23.5¹¹²). 'Strengthening *rtā* by means of *rtá* used of Mitra and Varuṇa and *rténa rtāvan* ' possessed of *rtá* by means of *rtá*, used of Varuṇa in IV.42.4.¹¹³

§27. Finally I draw attention to an extremely interesting and important verse V.62.8¹¹⁴: 'When at the breaking forth of the Dawn, you Two, O Mitra and Varuṇa, mount your car-seat (*gárta*), which is gold-hued and ore-pillared (*áyah-sthūnam*), at the rising of the Sun, you behold from there (*átah*, i.e. from the *gárta*) *áditi* and *díti* ' ! It must be remembered that the car referred to is often described as a one-wheel one (cf. I.164.2^a 115) and that in any case, the car-seat would be at the very top of the car-wheel, in the highest heaven (i.e. at the zenith). From here alone, would it be possible to observe *áditi* and *díti*, the two points (exactly opposite to each other) of freedom (from darkness) and bondage (through

109 *rtám rténa sápanṣirám dákṣam āśāte* | V.68.4^{ab}.

110 *rténa rtám dharúṇam dhārayanta yajñásya śāhé paramé vyòman* | V.15.2^{ab}.

111 *rténa mitrávaruṇāv rtāvīdhāv rtāsprśā* |
krátum bṛhántam āśāthe || I.2.8.

112 *rténa yāv rtāvīdhāv rtásya jyótiṣas pátī*
tā mitrávaruṇā huve || I.23.5.

113 *rténa putró áditer rtāvotá tridhātu prathayad ví bhūma* | IV.42.4^{cd}.

114 *hiraṇyaruṇam usásoṁ vyūṣtāv áyahsthūnam úditā sūryasya* |
ā rohatho varuṇa mitra gártam átās cakṣāthe áditīm dítīm ca || V.62.8.

115 See Footnote No. 102.

darkness), in the east and the west respectively, for the Sun and the other luminaries. A reference might be made to the figure opposite the last page for a clear idea of the position referred to. For an explanation of *gárta* and its location and significance, we might compare V.68.5^c ¹¹⁶ 'they i.e. Mitra and Varuṇa attain to the high-placed *gárta*', which in its turn is explained by *ṛtām bṛhāt* of V.68.1^c ¹¹⁷ and is the same thing as the scene of their mighty *kṣatráṃ* among the gods' in V.68.3^c ¹¹⁸ and the '*iṣirám dáḁṣam*' of V.68.4b^b.¹¹⁹ Light on this peculiar position in the *gárta* is further thrown by V.62.5^{cd}.¹²⁰ where we are told Mītra and Varuṇa developing their (full) power (*dhṛta-dakṣā*) take their position inside the *gárta*, in the midst of (nourishing or consecrated) foods ('*lāsu antáh*'). The following verse (V.62.6¹²¹) refers to the Two as upholding their dominion (*kṣatráṃ*) which is reared on a thousand pillars (*sahásra-sthūṇam*) protecting the worshipper in the midst of consecrated foods (*ilāsu antáh*). Verse 7th¹²² next adding the detail that the supporting pillar is gold-hued and made of ore makes it certain that in all these verses (V.62.5-8 and V.68.1, 3-5) the same pose assumed by Mitra and Varuṇa is under description—the pose of domination (*kṣatráṃ*) involving the exercise of their will-power (*daḁṣám*) inside the *gárta* i.e. on top of the wheel of *ṛtá*, i.e. so high up on the *ṛtá* as to be almost at the Zenith, where-from they could simultaneously observe *áditi* and *díti* as described in V.62.8. I have mentioned here this theory (though it is not an integral part of my main proposition) because it solves (in my opinion) the riddle of the natural basis of Aditi and Diti. We now understand why Aditi is the mother of a group of gods (the *Ādityas*) whose name represents a metronymic formation from hers. The 'Shining ones' in the course of their movement along the *ṛtá* (or the zodiac) reach a point (called

¹¹⁶ *bṛhantām gártam āsāte* || V.68.5^c.

¹¹⁷ *máhiḁsatráv ṛtām bṛhāt* || V.68.1^c.

¹¹⁸ *máhi vām kṣatráṃ dev'su* || V.68.3^c.

¹¹⁹ See Footnote No. 109.

¹²⁰ *námasvantā dhṛtadakṣādhi gárte mītrāsāthe varuṇéḁsuv antáh* || V.62.5^{cd}.

¹²¹ *ákṛavithastā sukríte paraspā yam trāsāthe varuṇéḁsuv antáh* |
ṛāḁ nā kṣatráṃ áhṛṇīyamānā sahásrastūṇam bibhṛthaḁ sahā dvaú | V.62.6.

¹²² *hīraṇyanirṇig áyo asya sthūṇā v' bhrājate divy ávūḁjanīva* |
bhadre kṣetre nimitā tīlvile vā sanéma mádhvo ádhigartyaśya || V.62.7.

Aditi) on the *rtá*, in the east, and are immediately born or reborn to a life of light (temporarily suspended) and freedom from the bondage of darkness, and hence are called *Ādityas*. Thus the two prominent characteristics of Aditi, her motherhood and her power of releasing from the bonds of physical suffering and moral guilt as well her connection with light are all satisfactorily explained. The name and conception of Diti are also accounted for in the most natural manner (as shown in a previous section). We now understand why Diti came to be invoked along with other gods to grant what is desirable (VII.15.12)¹²³ and why Agni is besought to grant Diti (IV.2.11^{cd}).¹²⁴ Diti in view of her equally important position on the *rtá* has as strong a claim as Aditi has, to the title of 'goddess', though in view of her connection with night and darkness, she naturally came to be neglected in the apportionment of divine honours. She is certainly no mere reflex of Aditi¹²⁵!

IV. R̥TÁ AS THE PĀŚA OF VARUṆA.

§28. I now examine the evidence that should (in my view) establish the conclusion that *rtá* (the belt of the Zodiac), which is the special charge of Varuṇa among the gods represents the physical basis of the conception of his *pāśa* which is fundamental to his character as the All-Binder or All-Encompasser.

In X.92.4¹²⁶, the snaring-net, noose or network of *rtá* (*rtásya prásiti*) receives divine honours being ranked as a deity along with Dyaus, Indra, Mitra, Varuṇa, etc. The word *prásiti* occurs frequently. In IV.4.1¹²⁷ OLDENBERG¹²⁸ agreeing with GRASSMAN's account in his *Wörterbuch* renders

¹²³ *tvám agne vīrávad yáso devás ca savitā bhágah |*
dítiś ca dāti vāryam || VII.15.12.

¹²⁴ *rāye ca naḥ svapatyāya deva détiṁ ca rāsvāditim uruṣya || IV.2.11^{cd}.*

¹²⁵ OLDENBERG, SBE 321.

¹²⁶ *rtásya hí prásitir dyaúr urú vyáco námo mahy arámatth páníyasi |*
índro mitró varuṇaḥ sáṁ cikitriré 'tho bhágah savitā pūtádaḥśasaḥ || X.92.4.

¹²⁷ *kṛṇusvá pájah prásitiṁ ná pṛthvīṁ yāhí rājevāmaṁśā íbhena |*
tṛṣṭīm ánu prásitiṁ drūṇānó 'stāsi vídhya rakṣásas ípisiṭhath || IV.4.1,

¹²⁸ SBE XLVI.

it as 'onslaught'. GELDNER¹²⁹ on IV.4.1 has however, almost delivered judgment, (in my opinion), regarding its meaning when he renders it as 'wurfschlinge' (a noose) and adds in his notes 'prāsiti is not one word but two; one meaning 'snaring net' (Fanggarn) is to be connected with the root *sā, si*, to bind (employed in IV.4.1) and another meaning 'advance', 'onset' to be connected with *prāsita* in IV.27.4 and X.77.5." A very clear idea of its meaning is given by X.87.11^{ab130}: 'That *yātudhāna* (demon or goblin) who strikes at *rtá* with non-*rtá* (*ánrtā*)—may he fall triply into your *prāsiti* (ensnaring net)'. The word 'trih' (triply) here is a reminder of the triple working of Varuṇa's *pāśa*. He who tries to supersede *rtá* with *ánrtā* falls into an ensnaring net (which as we shall see below is made up of the tangled web of *rtá* and *ánrtā*, escape from which is possible only by keeping strictly to the path of *rtá*).

The thread (*tántu*) of *rtá* is described in IX.73.9^{ab131}, as 'extending into the filter (*pavitra*), (i.e.) on to the tip of Varuṇa's tongue'. Though the scene or context here is that of the earthly sacrifice, there is at the same time a suggestion of the thread or cord of (the cosmic figure of) *rtá* extending right into the tongue of Varuṇa whose special connection with *rtá* is so well-established. It is with this tongue that the four-faced Varuṇa bestirs himself (V.48.5^a)¹³², which is easily understandable in the light of the preceding verse. Bestirring himself with the tongue is virtually setting into motion the thread or cord of *rtá*—which appears to be the instrument *par excellence* of Varuṇa's activity in his capacity as a *yātayāj-jana* (V. 72.2; I.136.3).

There is next the mention of the 'reins' or 'guiding cords' (*raśmī*) of *rtá*. I.123.13¹³³ speaks of the Dawn following the (guiding) cords of *rtá* and *thereby* shining forth. 'Agni has taken up the rein (or cord) of *rtá* with the strength of his splendour (V.7.3.^{cd})'.¹³⁴ Though the context

129 *Der RigVeda, übersetzt und erläutert*, 380.

130 *trīr yātudhānaḥ prāsitiṁ ta etv rtām yó agne ánrtēno hānti* | X.87.11^{ab}

131 *rtāsya tántur vītataḥ pavitra ā jihvāyā āgre vāruṇasya māyāyā* || IX.73.9^{ab}.

132 See Footnote No. 45.

133 *rtāsya raśmīm anuyācamānā*. . . |
ūṣo no adyā suhāvā vy ūcch. . . || I.123.13.

134 *utā dyumnāsya śāvasa rtāsya raśmīm ā dade* || V.7.3^{cd}.

here points to the terrestrial form of Agni, there is here a side-glance at Agni's celestial form and a play on the double meaning of *ṛtá* (earthly = rite and celestial = the zodiac) may have been intended, it being doubtful in many passages, which of Agni's aspects — terrestrial or celestial—is intended! We have already¹³⁵ discussed I.136.2 where there is the description of the path of *ṛtá* being directed or controlled by the reins or cords of *ṛtá*. Again in VIII.25.18^{ab136}, 'Who (Varuṇa) has measured off around (i.e. passed the measure round) the ends of heaven and earth with the cord (*raśmī*)', though there is no express mention of *ṛtá*, the implication is unmistakable that Varuṇa passes the measuring cord of *ṛtá* around heaven and earth, thus circumscribing them with a restraining *pāśa*, as it were, (for their good and not by way of punishment).

II.24.8^{ab137} speaks of the swift bow of Brahmanaspati—a bow of which *ṛtá* is the string (*ṛjā*).

The conception of the wheel of *ṛtá* containing within itself all Beings (dealt with in a preceding¹³⁸ section) is, in a sense, the *pāśa*-conception in another form. The encircling wheel with its network of spokes is but another version of the enclosing *pāśa* with its network of cords, both tending to circumscribe activity.

In VII.65.3¹³⁹ Mitra and Varuṇa are called the Bonds (personified) of *ánṛta*, equipped with many nooses (*bhūripāśā*), difficult to pass through for the hostile mortal. Only by following their own path of *ṛtá* (we are told) is it possible to cross through hardships. Here 'Bonds' must mean binders; compare IX.73.4^{d 140}: at every step are bonds (*śétavaḥ*) that are equipped with nooses (*pāśīnaḥ*). X.67.4¹⁴¹: 'Brhaspati seeking light in the midst of darkness drove up the cows (beams of the Dawn), lying concealed in the bond of *ánṛta*, above one (closed hole) and below two (closed holes) in the cave, (because) he opened up all the three holes'.

¹³⁵ See Section 21.

¹³⁶ *pári yo raśmína divó 'ntān mamé pṛthivyāḥ* | VIII.25.18^{ab}.

¹³⁷ *ṛtájyēna kṣipreṇa bráhmaṇas pátir yátra váṣṭi prá tád áśnoti dhánvanā* || II.24.8^{ab}.

¹³⁸ See Section 25.

¹³⁹ *tá bhūripāśāv ánṛtasya śétū duratyétū ripáve mártvyāya* |
ṛtasya mitrāvaruṇā pathā vām apó ná nāvā duritā tarema || VII.65.3.

¹⁴⁰ *padé-pade pāśīnaḥ santi śétavaḥ* || IX.73.4^d.

¹⁴¹ *avó dvābhyām pará ékayā gā gūṭā tīṣṭhantīr ánṛtasya śétau* |
bṛhaspátis tāmasi jyótir ichánn úd usrá ākar ví hí tīsrā āvah || X.67.4.

§29. The tangled web of the physical dispositions of *ṛtá* and *ánṛta* described in these verses can be pictured as follows : *ṛtá* (the belt of the Zodiac), was, no doubt, a kind of bond extending through space circumscribing the activities and movements of gods and men within itself but it was a bond in a good sense like the *dharmapāśa* of Varuṇa in the Mahābhārata.¹⁴² Immediately outside this *ṛtá*, extended the bonds (or network of snares) of *ánṛta* which gripped those celestials who strayed from or were removed by a hostile being from *ṛta* into *ánṛta* (in a physical sense) like the cows or rays of the Dawn or those mortals who took to *ánṛta* in a moral and religious sense. The *prāsiti* (the ensnaring net) of *ṛtá* probably means this complicated and involved tangle or web of *ṛtá* and *ánṛta* and represents the ramifications of the nooses of Varuṇa, escape from which was, however, possible by strict adherence to the path of *ṛtá* (in all senses of the term, physical, moral and religious). In other words, *ṛtá* (or its custodians Mitra and Varuṇa) was itself *the bond that bound (the snares of) ánṛta* (cf. VII.65.3 above where the Two Gods are described as the binders of *ánṛta*) and kept it from entrapping the luminaries who followed the right path.

§30. To separate the confused strands of *ṛtá* and *ánṛta* in this tangled skein was no easy task for god or mortal. The RgVedic poets themselves freely express the difficulty¹⁴³ of keeping them apart, which only the great gods could overcome. In I.105.5^{abc144} the poet asks 'Ye gods who abide in the three illuminated (regions) of peaven, which is your *ṛtá* and which is your *ánṛta*?' In I.139.2^{abc145} Mitra and Varuṇa are referred to as separating *ṛtá* from *ánṛta* with the most energetic exercise of their power of will and thought. In X.124.5^{cd146} it is explicitly stated that for Varuṇa the assumption of the sovereignty of Indra's dominion was dependent on his capacity to distinguish *ṛtá* from *ánṛta*. [This verse incidentally throws light on how Varuṇa or Varuṇa and Mitra come

¹⁴² *Mbh.* 2.9.17 ; 5.126.46.

¹⁴³ Compare for example the following verse where the poet wonders *where* the *ṛtá* has disappeared !

kvā ṛtām pūrvyān gatām kās tād bibharti nūtano . . . || I.105.4^{cd}.

¹⁴⁴ *amīyē devāḥ sthāna triṣv ā rocanē divāḥ |*

kād va ṛtām kād ánṛtaṁ || I.105.5^{abc}.

¹⁴⁵ *yād dha tyān mitravaruṇāv ṛtād edhy ādadhāthe ánṛtaṁ svēna manyūnā dākṣaṣya svēna manyūnā* | I.139.2^{abc}.

¹⁴⁶ *ṛtēna rājann ánṛtaṁ viviñcān máma rāṣṭrásyādhipatyam éhi* || X.124.5^{cd}.

to have their double dominion (cf. *dvitā rāṣṭrām* in IV.42.1¹⁴⁷ and VII.28.4)¹⁴⁸ over the spheres of light and darkness. To take over the charge of the sphere of light from Indra, it was necessary to separate *ṛtā* from non-*ṛtā*. Mitra and Varuṇa press down all *ánrtas* and line up with *ṛtā* (I.152.1^{cd})¹⁴⁹. Verse 3rd¹⁵⁰ of the same hymn tells us that when Uṣas marches ahead, *that* is the work of Mitra and Varuṇa and when the *gárbha* (Sun) bears the burden ('his own burden', because the mother Uṣas has disappeared), the *gárbha* has to suppress *ánrta* and bring across or uphold *ṛtā*.

§31. Whereas thus, there is a large number of passages that preserve the *physical* sense of *ṛtā* (= the Zodiac), there are only a few that do so with regard to its opposite, the *ánrta* or non-*ṛtā* which retains chiefly those meanings which are the anti-thesis of *ṛtā* in its moral and religious aspects and these few we examine now. In II.24.6¹⁵¹ and 7^{ab}, the Aṅgirasas in their search for cows (the rays of the Dawn) hidden by the Paṇis are said to have detected *ánrtas* first and then (and then alone) to have reached the path of light (*máh*). Similarly Varuṇa is said to detect *ánrta* in VII.28.4^{c152}. Mitra Aryaman and Varuṇa are said to be the chastisers of *ánrta* and (therefore) able to prosper in the seat of *ṛtā*, in VII.60.5.¹⁵³ Varuṇa is said to destroy or resist *ánrta* in VII.84.4^{cd154}. Finally V.12.4¹⁵⁵ tells us that Agni's fetters (*bándhanāsaḥ*) are kept ready for those who drink (*pānti*) the drink (*dhāsīm*) of *ánrta* or who protect (*pānti*) the support (*dhāsīm*) of *ánrta*. A pun seems to have been intended on *pānti* (which may be connected either with the root *pā*, to drink or with the root *pā* to protect as well as on *dhāsīm*).

147 *māma dvitā rāṣṭrkṣatriyasya* | IV.42.1^a.

148 See Footnote No. 42.

149 *āvātiratam ánrtāni víśva ṛtēna mitrāvaruṇā sacche* || I.152.1^{cd}.

150 *apād eti prathamā padvātinām kās tād vām mitrāvaruṇā ciketa* |
gárbho bhāram bharaty ā cid asya ṛtām pīpary ánrtām ní tārīt || I.152.3.

151 *abhinakṣanto abhi yé tām ānāsúr nidhīm pañinām paramām gúhā hitām* ||
te vidvāmsaḥ praticákṣyānrta púnar yāta u āyan tād úd iyur āvísam || II.24.6.
ṛtāvānaḥ praticákṣyānrta pānar āta ā tasthuḥ kavāyo mahās pathāḥ | II.24.7^{ab}.

152 *prāti yac cāṣṭe ánrtam anenāḥ* || VII.28.4^{cd}.

153 *imé cetāro ánrtasya bhūrer mitró aryamā varuṇo hí sánti* || VII.60.5^{ab}.

154 *prā yā ādityó ánrtā mināty āmitā śūro dayate vāsūni* || VII.84.4^{cd}.

155 *ké te agne rip've bándhanāsaḥ ké pāyāvah sanīpanta dyumántaḥ* |
ké dhāsīm agne ánrtasya pānti ká āsato vācasah santi gopāḥ || V.12.4.

§32. We may now recapitulate the various arguments step by step, leading up to our main proposition thus :—

I. The *pāśas* are so distinctive of Varuṇa that they reveal on closer investigation, a fundamental aspect of his character as the All-Binder, All-Encompasser, All-Enveloper or All-Pervader.

II. *Ṛtá* is so intimately connected with Varuṇa as to be almost his special charge.

III. The physical counterpart or natural basis of *ṛtá* which enjoys divine status in the R̥gVeda is the belt of the Zodiac which no light of heaven (*deva*) may deviate from.

IV. The references to the wheel, the thread (*īantu*), the cord (*raśmī*), string (*ḥyā*) and finally the network (*prāsili*) of *ṛtá* point definitely to this *ṛtá* as the *pāśa* (in a good sense) of Varuṇa—the *dharmapāśa*, the noose of Right, which is spoken of in the Mahābhārata. The mention of the cows (rays of the Dawn) lying trapped in the bond of *ánṛta* (X.67.4) and of Varuṇa and Mitra as themselves the Binders of *ánṛta* (VI.1.65.3) and the many references to the difficulty of unravelling the strands of *ṛtá* from those of *ánṛta*—[a difficulty overcome by the Great Gods only by lining themselves up with *ṛtá* which itself was a kind of Bond (VII.65.3) that bound or passed round and thus kept within proper bounds the meshes of *ánṛta* which extended outside *ṛtā*—all drew up a vivid picture of the tangled skein of *ṛtá* and *ánṛta* reappearing in the moral plane as *satyānṛté* (Vn. 49.3) and provide the most natural (*physical*) basis of that awe-inspiring conception of *pāśa* originally associated with Varuṇa and later with Yama. An examination of the subsequent phases of the development of this conception in post-R̥gVedic literature and the two epics must be reserved for a separate paper, the limited purpose of this paper being a search for the earliest (i.e. R̥gVedic) antecedents of the *dharmapāśa* of Varuṇa in the Mahābhārata.

THE BHAGAVADGĪTĀ AND THE GĀTHĀS OF ZARATHUSHTRA

By

IRACH J. S. TARAPOREWALA

The truths in the Gāthās of Zarathushtra which form the very foundation of the Zoroastrian faith are the same as those contained in the Gītā. Indeed, the very names are identical, conveying the same meaning "the Song Divine". What I find is that these two great Aryan Scriptures teach the same fundamental truths and often in almost identical manner. Every passage in the Gāthās can be paralleled in the Gītā.

In the very beginning of the Gāthā *Ahunavaiti* (*Yasna* 29) we have a magnificent "Prologue in Heaven", comparable with that given in GOETHE'S *Faust* for dramatic effect. Here we have the oppressed and distracted "Soul of Mother-Earth" (Gōuš-Urvā) approaching the Supreme Being with her lamentation. The ancient Hindu story of Pṛthivī in the shape of a Cow, carrying her sorrowful tale upto Viṣṇu at once occurs to us. The very name Gōuš-Urvā is suggestive. She approaches the Supreme Ahurā-Mazdā relying on the ancient promise so clearly expressed in the Gītā (iv. 7-8).

yadā yadā hi dharmasya glānir bhuvati bhārata |
abhyutthānam adharmasya tadā' tmānam sṛjāmy aham ||
paritrāṇāya sādhunām vināśāya ca duṣkṛtām |
dharmasaṁsthāpanārthāya sambhavāmi yuge yuge ||

In the Gāthā, however, Ahurā-Mazdā does not himself go down upon earth, but sends down his "noblest Creation" Zarathushtra.

Very striking is the list of distresses Mother-Earth has been suffering from :

"Passion, and rapine, outrage everywhere,

"And violence doth enmesh me all around." (*Yas.* 29.1)

The notable point is that "Passion" leads the list. This is the *kāma* of the Gītā, the *mahāśano nāhāpāpmā* who is the true enemy of mankind on earth. The word used in the Gāthā for this is *Aēšma*. It is derived

from √ *ācēṣ-* (*is-* : *icch*), 'to desire' and hence is the exact equivalent of *kāma*. But there is a double meaning in this name. It signifies both "(selfish) desire" and "anger". *kāma-krodha* often occur together in the *Gītā*. We have in the *Gītā* (ii.62) the genesis of *krodha* from *kāma*. The close relation between the two is also shown in *Gītā* (iii.37) where this two-fold *kāma-krodha* is considered as root of all evil done by man, "forced as it were into it" (*balād iva niyojitah*). Śankara's comment on the words *kāma eṣa krodha eṣaḥ* is quite illuminating. He says :

kāma eṣa sarva loka śatruṣṭvānimmittā sarvānarthaprāptiḥ prāninām |
sa eṣa kāmaḥ pratītiḥ kenacit krodhatvena pariṇamate |
ataḥ krodho'pyeṣa eva ||

This clearly shows that the *Gītā* regards *kāma* and *krodha* as two aspects of the same emotion, the latter being "*kāma* frustrated". Moreover in the Kāśmīra recension of the *Gītā* several verses are added after iii.37, in which the word *śatru* (in the singular) is used for both, thus proving their essential identity.¹ In the *Gāthā* the identity is closer, for the same name has been used for both.

From the above sample we see how the study of the *Gītā* throws unexpected light on *Gāthā* passages. Another example may be given. I had long been puzzled why in the *Gāthā* there was almost no emphasising of *bhakti*. I once heard such an eminent authority as Shams-ul-Ulema Dastur Dr. M. N. DHALLA lamenting the lack of the *bhakti*-cult in early Zoroastrianism. After some years of reading and thinking I have come to the conclusion that the three "Holy Immortals" (*Amgš-ā-Spəntā*) -*Aša*, *Vohu-Mano*, and *Xšaθra*- stand respectively for the three Paths—of Knowledge, Love and Service—described in the *Gītā*. I was led to this by a hint in the Pahlavi commentary to the Ahuna-Vairya verse (Yas. 27.13), that in the three lines of that verse these three "Holy Immortals" are mentioned in their order. This certainly leads to a profounder understanding of this verse.

Now the first *Gāthā*, Ahunavaiti, is so named because it is an expansion of the fundamental teaching contained in the Ahuna-Vairya. Working on that supposition and carefully noting the characteristics and functions of each "Holy Immortal" as described in the *Gāthā*, we come inevitably

¹ See BELVALKAR's edition of the *Bhagavad-Gītā*, (Poona 1941) pp. 63 ff.

to the conclusion that these three represent the three aspects of the Supreme to be realised respectively along the Paths of Knowledge, Love and Service.

It is remarkable that while in the Gāthās *Aša* occupies the "first place" amongst the "Holy Immortals", his next colleague *Vohu-Manō* has been mentioned most often. So here we get clear indications of the Path of Love emphasised in the Gāthās. Many scholars have believed (and I agree with them) that the best exposition of *bhakti* in Iran has been through *Šufi*-ism. And *Šufi* teachings can in their turn be traced back to Zoroastrian ideas, especially to the cult of *Vohu-Manō*. It is very significant that in later Zoroastrian doctrine *Vohu-Manō* occupies the "first place" amongst the "Holy Immortals."¹

A third example illustrating the light thrown by the *Gītā* on the inner signification of the Gāthā doctrine may be added. In *Yasna* 30 we get Zarathushtra's teaching of the Twin-Spirits. The pure philosophical teaching of the Prophet has undergone strange transformations in later days. In the Gāthā he definitely states that both are "created by *Mazdā*" (*Mazdāōā*) and are eternally opposed in every way one to the other. When first the two came together, one created "Life" and the other "Not-Life", "so that Creation's purpose be fulfilled" (*Yas.* 30·4). This reminds us at once of the doctrine of *Puruṣa* and *Prakṛti* as taught in the *Gītā*² and elaborated in the *Sāṅkhya-darśana*. What we called "good" and "evil" is only "relative" and depends upon the amount of ignorance that is within ourselves. As the *Gītā* puts it

ajñānenā vṛtam jñānam tena muhyanti jantavaḥ (v. 15).

The whole theory of evil worked out in *Yas.* 40 and 31 clearly points out that when people are doubting as to what is the right course "the Deluder" comes and confounds them, taking advantage of their selfish desires. Ignorance of the Divine Spirit within us is the real cause of evil and pain, this is the teaching alike of the Gāthā and of the *Gītā*. Thus the *Gītā* amplifies and supplements what is often given in the Gāthās, as a terse sentence.

¹ This is typified by the names of the days of the Zoroastrian month—the first three are *Ahura mazda*, *Vohu-Mano* and *Āša-Vahišta*.

² Cf. *Gītā*, 13.19 ff.

THE MAHĀBHĀRATA DATA FOR ARYAN EXPANSION IN INDIA I

By

T. S. SHEJWALKAR

Two decades ago when Dr. H. C. RAI CHAUDHARI began his studies in Ancient Indian Geography 'the most serious difficulty in the way of utilising the Epic and Puranic accounts was the corruption of the text.'¹ Fortunately for us we now have the Critical Edition of the *Mahābhārata* which will help in taking a fresh review of the same material. The work is not yet complete and so we cannot still have a complete study based on the whole of the Epic. To that extent our study will have to be partial and so we have chosen a limited field of enquiry. It pertains to the holy places of the Aryans in the "Mahābhārata Age", a period of time, as is known to scholars, which is difficult to decide. When a penetrating editor of the acumen of the late Dr. V. S. SUKTHANKAR found to his dismay that one line of a verse in the Epic may belong to a period centuries earlier than the second, the difficulty of judging time will be patent to every one. Though our enquiry pertains to the holy places we are not primarily interested in their religious or sociological aspects. We want to fix the geographical habitation of the places in which those holy places actually stood and after dotting the same on the map of India to come to some conclusion about the spread of Aryan colonisation in that age. For the spread of knowledge of Indian Geography amongst the Aryans at a particular time of their history is one thing, while their actual spreading over the area and colonising the same is another thing. The creation of holy places is a sure guide to Aryan colonisation, in our opinion. The places might be far and few between, but the criterion we think is quite certain and clear as a guide. The Aryan colonisation was not, and could not be from the nature of the case—a continuous conquering march of a horde like that of a Timur or a Changezkhan. It was first and foremost a cultural conquest and only incidentally a geographical occupation. The original idea about the overwhelming nature of Aryan superiority

¹ *Studies in Indian Antiquities*, 1932, p. 40.

in all walks of life is, we think, now completely expelled from the historian's outlook. The strength and the good points of the aboriginal cultures have also become more manifest by further studies in that direction and the unearthing of their past civilisations. The main stock of the Hindu civilisation still seems to be aboriginal on which the Aryans grafted their culture, thus giving a rich new taste and colour to the natural plant.

The first item in an investigation of the holy places would be the point whether the idea of deifying the rivers, the mountains, the forests and trees was Aryan in its origin or whether it was adopted from the aboriginal races. In the former case the names bestowed on these would be naturally in the Aryan tongue, but if the latter be their origin, the names are likely to be also in the languages of the local races. In a sense this is a primary and a basic point, but it must be left to comparative philology in the main. The pit-fall underlying an attempt at the derivation of all names from Aryan roots should be obvious to any one. Our essay will keep aside this matter and only begin with the idea that the places had been already marked as their own by the Aryan priesthood.

The geographical investigation from the Purāṇic data is difficult in the extreme. It is doubtful whether the sense of direction and distance was exact amongst the ancients. Some investigators have already tried to work on the idea that the directions mentioned in the *Mahābhārata* can not² be treated as exact or even correct because Bhīma is supposed to have gone to the eastern quarter, it need not be assumed that all the places in his itinerary were necessarily to the east of Delhi. In the first place, directions are seldom given in *Mahābhārata* descriptions and where given they are mentioned in a very broad sense. But it would be idle to ignore the directions whenever they are stated and in their total absence all investigation in itself will be without any direction. Verbal identity of place names can never be a sure indication of their habitat. We think a good deal of confusion has already been created by following the purely verbal method without applying the geographical and the historical methods in its train. The names of the places of pilgrimage have been especially multiplied in India to suit the regional and local pride and convenience. This work of multiplication seems to have already begun in good earnest even during the "*Mahābhārata* age."

² *Studies in Indian Antiquities*, 1932, p. 117.

Already we find in the Epic the various names of *tirthas* often repeated and spread over a wider area. Originally the *tirtha* might have started at a particular place, but soon it comes to be a commemoration of a particular event which has nothing to do with the geographical situation. The original Rāma-hrada might be situated for aught we know at the actual place where Paraśurāma did a certain thing. But the idea soon became popular and the priests working on it created various Rāma-hradas and Rāma Tirthas in localities so widely separated as Kurukṣetra and the Śūrparāka-ḥsetra or at the base of the Himalayas or near the shores of the Bay of Bengal. In all the holy localities of the Hindus we find, not only now but even in the Epic age, the names of the various holy spots repeated, imitated and multiplied. It would be a problem for investigation where any particular name actually started. The Brahmins seemed to have worked on the idea of flattering their clientele on their pride of ancient places and reproduced the same in the new localities colonised or occupied by the Aryans. They also ministered to the convenience of their devout followers and tried to soothe their conscience by visiting the local self-same shrines in lieu of the distant original holy places, difficult of access to an ordinary man of the world. Where the names of the original holy places were not actually repeated the new places were endowed with the same religious merit as was to be had at the original place.

If the holy spots are repeated, it seems no wonder, that the merit to be secured by visiting them and going through the appointed ceremonies is also tiresomely repeated in the mention of these places. The categories of religious merit flowing from these holy places can be classified into certain well-defined kinds. These show the hopes and fears of the humanity in the Epic age and throw a flood of light on the psychology of their religious beliefs and their worldly needs. These hopes and fears are not necessarily the same as are to be found in the later ages with advanced civilizations. A comparative study of the advance of humanity on the materialistic basis would serve history in an important aspect.

If the actual geographical habitat of a place of pilgrimage is difficult to locate or identify, the identity and the original situation of a shrine, a pond, a fountain, and the like situated in a particular locality is almost impossible to verify. CUNNINGHAM³ has related a curious legend about

³ Reports of the Archaeological Survey of India, 14.90.

the identification of the ancient holy places. According to the Kurukṣetra *Māhātmya* "the holy places in that locality had lain desolate for several centuries after the Muhammadan conquest when a Daṇḍī named Rāmchandra Swāmi came from Kaśī to Kurukṣetra. He was grieved to see the desolation and determined to stop there and try to restore the holy places. But as even the sites of many were unknown, he professed to have obtained a knowledge of them in his dreams and accordingly he wrote a book describing them, which is called the *Māhātmya* of 6,000 ślokaṣ and also the 'Daṇḍī *Māhātmya*'. Long afterwards a Pandit of Thanesar, named Banmali traced all the holy sites from the positions given by the Daṇḍī, whose account is now accepted as genuine by all brahmins, although his only authority for the identifications was a dream."

What CUNNINGHAM has related about Kurukṣetra is possibly applicable to other big centres of pilgrimage like Benares, Prayāga, Haridwar, Badari-Kedar, Gayā, Pushkara and other similar places, except where the actual site is unchangeable like the peak of a clearly known mountain, and the like. In the plains of Hindustan the rivers and streams change their courses frequently and it is next to impossible to presume that the ancient sites have remained where they actually were. Later on when solid stone-ghats or pavements came to be built and the towns had risen high on the debris of centuries and were protected by embankments and similar devices, the places probably came to be more or less defined and fixed once for all. But this is a comparatively very late event in history. We suspect that the various current names of shrines and sites have in many cases been given to them by later revivalists of pious dispositions after the manner of Rāmchandra Dandī. Being well versed in the ancient Epics and Purāṇas, they took the lists of holy places as found in these books and tried to fix them as best as they could. And what else would they do when geological changes, human vandalism, migrations of populations due to historical causes resulting in clean forgetting or wide lapses of memory, had left no clue to proper verification?

What has been said above is not wild imagination or a mere guess. It is known from history⁴ that when Mahmud of Gazni crossed the river Saraswatī, it was an impetuous deep stream of stony bottom strewn with large pebbles. Now it is completely silted with 30 feet of fine sand and

⁴ ELLIOT and DOWSON, *Muhammadden Historians*, 2.40.

so has almost ceased to be a running stream. When the whole locality of Kurukṣetra was trodden down beyond recognition by invading hordes of Huṇas, Śakas, Gurjaras, Afghans, Mongols and Turks, how can the ancient ponds and shrines remain standing where they were? And these things have happened to almost all the holy localities in India, for the holy places were richly endowed and possessed vast wealth of precious metals. Where the locality was left undisturbed by the invading hordes as in the case of the Ganges Valley above Haridwar, the disturbed condition of the country stopped pilgrimages to these distant places for a sufficiently long time to effect lapses of memory. When the great Śaṅkarāchārya came, he had to rehabilitate things in the disturbed valley, so it is related⁵ in the current legends of the various places in the localities concerned.

Taking into consideration all these factors we have come to the conclusion that it is idle to try to identify the various holy spots mentioned in the *Mahābhārata* lists of holy places, except in so far as the geographical data is clearly defined and unchangeable.

In dealing with the subject, it is necessary to bear in mind that the narration of the holy spots does not belong to the class of cosmographical episodes found interspersed in the various Purāṇas as well as the Epic. Therefore there can be no formal mode of expression or regular description of the various places mentioned in the *Tīrtha-Yātrā*. At the same time it would be impossible for an investigator to disregard any clues as to the directions, locations and descriptions of the places mentioned for what they are worth. Any casual clue for the identification of spots must be taken as more likely to be correct than any formal treatment of the subject matter. The possibility of interpolations and later additions will always be there and it is very difficult, if not impossible, to detect the later from the earlier.

In the *Āraṇyaka Parvan* of the *Mahābhārata* there is an upaparvan called *Tīrtha-Yātrā Parvan*. In the critical edition it contains the *Adhyāyas* 80 to 153 both inclusive. Of these the first nine *Adhyāyas* deal with the various holy places and spots in two different sets. First Pulastya's narration to Bhīṣma is renarrated through the medium of Nārada to Yudhiṣṭhira in four long *Adhyāyas* containing 133, 178, 143, 144 verses

⁵ *Tīrtha-yātrā-prabandha* (Marāṭhi) 1885, by G. S. LELE Śāstri, of Tryambak, p. 37.

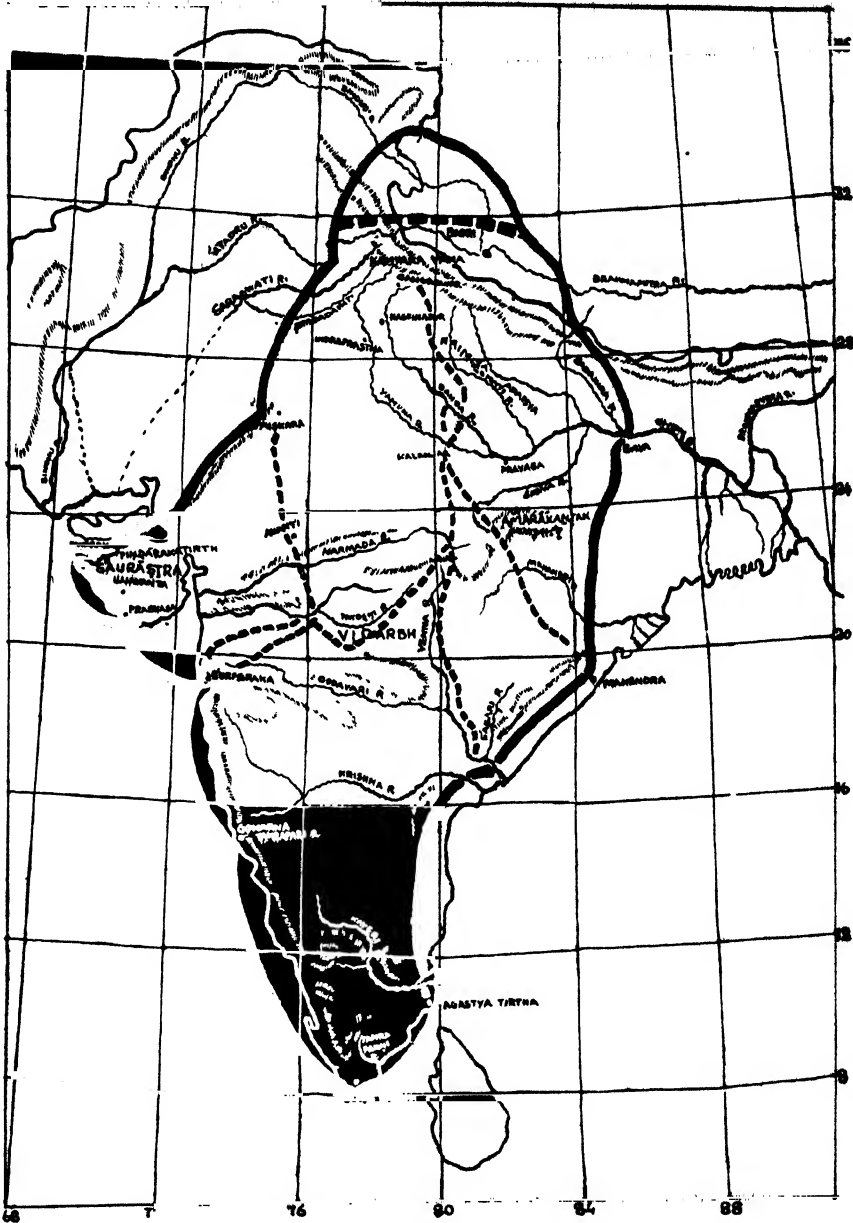
in them. The *Adhyāya* 84 is a sort of short connecting link. In the four next *Adhyāyas*, Dhaumya, the priest of the Pāṇḍavas, relates in four short *Adhyāyas* the various holy places of India in four groups each devoted to one of the four quarters in succession. The verses in these four chapters are 23, 24, 25 and 30 successively. The rest of the *Tīrtha-Yātrā Parvan* is occupied in the actual itinerary of Yudhiṣṭhira with his brothers (except Arjuna) and wife to the various places in the company of the sage Lomaśa. Naturally it contains, in the *Mahābhārata* style, a number of *upākhyānas* which occupy the major portion of the rest of the *Adhyāyas* in the *Parvan*.

The first thought that naturally occurs to the mind of any lay reader is about the necessity and propriety of having two different sets of *Adhyāyas* of unequal length for the narration of the various holy spots to the Pāṇḍava brothers. On the ground of style alone it can be seen that the two sets of narration belong to two different times in history. This fact has already been noted by scholars and inferences drawn from it. Thus Mr. M. V. VAIDYA has contributed an article to the *P. V. Kane Festschrift Volume*⁶ on the Pulastya *Tīrtha-yātrā* and its affinities with the *Padma Purāṇa* narration of holy places. Therein he has pointed out "the difficulties in the way of pinning down this episode to the *Mahābhārata*. *Pulastya-Tīrtha-Yātrā* is not known to the composer of the *Anuṣṭupyaṇi-Parva* in the *Ādi* and even in the *Pervasaṃgraha Parva*, it is mentioned in a passage which is clearly spurious." Though it is proved that this *Mahābhārata* episode is the basis of the *Padma Purāṇa* section of *Tīrtha Yātrā*, it clearly belongs to the latest strata of the Epic and is chronologically of the same age as the *Purāṇas* with their altogether different outlook and spirit. It belongs to the time when *Mahātmyas* of various holy spots come into vogue. On the other hand the Dhaumya set of narration seems to belong to a much earlier age. A comparison between the two narrations is sure to prove useful for arriving at certain broad results in the history of the Aryan colonisation in India and the spread of Aryan culture as a whole.

Though the two sets of narration of the holy spots belong to different times separated by centuries, still both appear to be thoroughly Brahmanical. This fact need not preclude the possibility of the second and bigger version of the Pulastya narration being post-Buddhistic in time.

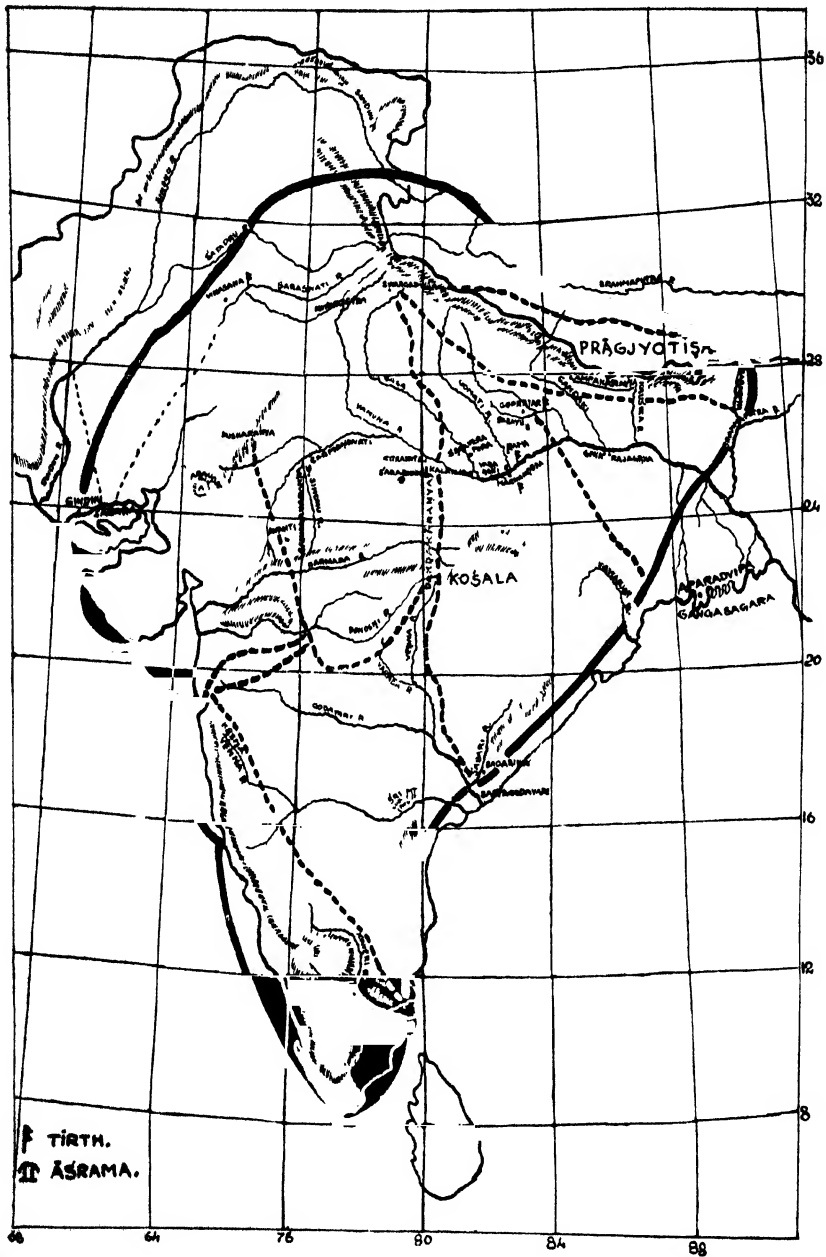
⁶ A *Volume of Studies in Indology*, pp. 532-4.

ARYAN EXPANSION



ACCORDING TO DHAUMYA NARRATION

ARYAN EXPANSION



ACCORDING TO PULASTYA NARRATION

But the same can certainly not be said of the shorter Dhaumya-set of narration. Our grounds for taking such a view are as follows :—

(1) The Dhaumya-set of narration, is much shorter than the Pulastya narration and thus naturally shows a less advanced stage of Aryan Expansion.

(2) From the request of king Yudhiṣṭhira it clearly appears that his aim in inquiring about the various places spread all over India was mainly to spend the time⁷ in ever-new localities till the return of Arjuna at whose separation the remaining brothers were feeling ill-at-ease. He is not out for a religious pilgrimage as such, but simply wants to counteract the heaviness of soul⁸ by which all the Pāṇḍavas brothers with Draupadī were afflicted. They found it impossible to continue in the Kāmyaka forest where they were sojourning on account of its associations with Arjuna who had now left them on a long tour. This is in marked contrast with the aim of the Pulastya narration which is definitely told to detail the merits⁹ to be gleaned by undertaking a pilgrimage of the then known holy places of the Āryas.

(3) It is curious to find that no mention of god Śiva ever once occurs in the four Adhyāyas¹⁰ of Dhaumya narration and even the mention of Viṣṇu in two places,¹¹ appears to be a somewhat clumsy¹² and therefore later addition. Otherwise the whole narration is without any mention of later Hindu gods. Dhaumya narrates sites where holy men have lived, where some well-known figures have performed sacrifices, where important events have occurred. He is almost silent on the merits which accrue to a person by visiting these various places of hallowed memory. Indra and Varuṇa, Kubera and Brahmā are mentioned in connection with sacrifices but they are not treated as specific deities at particular shrines.

⁷ Mahābhārata, III 84.18.

⁸ *Ibid.*, 3.84.15.16.

⁹ *Ibid.*, 3.80.28-40.

¹⁰ *Ibid.*, 3.85-88.

¹¹ *Ibid.*, 3.86.21-4; 88.21-7.

¹² The verses 21-4 of adhyāya 86 and 24-7 of 88 use a superlative tone which is foreign to the whole tenor of Dhaumya narration and seems specially inserted later on to boost Kṛṣṇa. They look like unnecessary pendants out of tune with the rest of the verses.

(4) The fourth and the most important proof is the geographical area covered by Dhaumya-set of narration. In the east, Dhaumya begins by crossing the Ganges with Naimiṣa¹³ forest. Thence he goes to the Gomatī¹⁴ river, but afterwards instead of going further he crosses the Ganges and goes direct to Gayā.¹⁵ Even from Gayā he does not proceed further. He returns and comes to the Ganges-Jumnā Doab.¹⁶ But he does not stop there. He again takes a southerly direction and goes to Kālāñjara¹⁷ hill and still further on to the mountain Mahendra¹⁸ almost bordering on the bay of Bengal. Thence he again returns to the Ganges basin¹⁹ and ends there his Eastern itinerary. This shows clearly that Dhaumya and the men of his time had no clear sense of directions in India; and secondly that the Aryans had still not crossed the river Sādanīrā into what became Videha afterwards. For some time the further eastern limit of Aryan advance in the Gangetic basin was only Kośala as it is mentioned in the legend narrated in the Satapatha Brāhmaṇa.²⁰ Thus talking in terms of time Dhaumya belongs to that earlier time which preceded the colonisation of Videha, Aṅga²¹ and the countries beyond.

(5) Though the Aryans had not gone further east, that does not mean that they were unacquainted with the south. In fact Dhaumya narrates southern holy spots in equal numbers. It is also significant that he begins the south with the river Godāvārī and the Payoṣṇī. That shows that the Aryans had crossed to the Deccan along the same path as is reported to have been taken by Rāma Dāśarathi in the Rāmāyaṇa. Still nowhere in Dhaumya's narration is there any hint of Rāma as a hero much less as a god. While Viṣṇu is on his way to

¹³ Mahābhārata, 3.85.4.

¹⁴ *Ibid.*, 3.85.5.

¹⁵ *Ibid.*, 3.85.6.

¹⁶ *Ibid.*, 3.85.12.

¹⁷ *Ibid.*, 3.85.15.

¹⁸ *Ibid.*, 3.85.16.

¹⁹ *Ibid.*, 3.85.21.

²⁰ B. C. SEN, *Some Historical Aspects of the Inscriptions of Bengal*, 1942, p. 7. "From a very uncultivated and very marshy land, Videha, which had not been previously tilled by Agni Vaiśvānara became soon converted into a quite habitable region."

²¹ *Ibid.*, p. 7. Aṅga is first mentioned in Atharvaveda; Vairocana, a king of Aṅga, performed a horse-sacrifice according to the Aitareya Brāhmaṇa which also mentions the Puṣṭrās.

become a supreme deity in his form of Nārāyaṇa²² and Kṛṣṇa²³, Rāma Dāśarathī or Jāmadagnya should not be mentioned even as a hero is to our mind a very telling omission.

(6) Of the Bhārgava clan which is taken by Dr. SUKTHANKAR to be responsible for the final redaction of the *Mahābhārata* in the main, Bhṛgu, Cyavana, Mārkaṇḍeya and Jamadagni are mentioned in the Dhaumya narration with the significant omission of Paraśurāma. Once where (3.85.11) the reading Jāmadagnya is adopted in the critical edition, the foot-note gives the variant Jamadagni for the Śāradā, Kāśmīrī, Bangālī and other important northern recensions showing that Jamadagni must be the older reading. This is also supported by the fact that Paraśurāma is not known to have been connected with the sacrifice performed by Viśvāmitra or to have recited a genealogy (*anuvāṁśam*) there²⁴.

(7) Śūrpāraka which is generally taken to have been created by Paraśurāma, is referred to as an altar of Jamadagni²⁵ only in the critical edition, thus proving its earlier colonisation by the father and not by the son.

(8) Mount Mahendra which is also generally taken as the creation of Paraśurāma, is referred to as a place of Mahātmā Bhārgava,²⁶ which can be connected with any member of the Bhṛgu clan and need not be necessarily put to the credit of Paraśurāma on the basis of this reference.

(9) Kurukṣetra, which is otherwise known as Samantapañcaka²⁷ and is renowned for its five pools of blood created by Paraśurāma after slaughtering the Kṣatriyas twenty-one times, is not so much as mentioned in the Dhaumya narration though in the Pulastya narration Rāmaṛhadas are described with their anecdote in a number of verses.²⁸

²² Mbh. 3.88.27—Nārāyaṇa is called an Ādi-deva (First god), the great Yogi (Mahāyogī) to whom all ṛṣis and gods make a daily obeisance.

²³ Mbh. 3.88.21-4. Kṛṣṇa is called Sanātana Dharma himself and also God of gods (Devadevah).

²⁴ Mbh. 3.85.11.

²⁵ Mbh. 3.86.9.

²⁶ Mbh. 3.85.16.

²⁷ Mbh. 3.117.9.

²⁸ Mbh. 3.81.22-33.

On the other hand, according to Dhaumya, the great renowned Jamadagni had performed a sacrifice there at which all the great rivers attended with their waters and Viśvavasu recited a well-known verse,²⁹ thus proving that the father had an earlier connection with that famous locality.

(10) Similarly Dhaumya disposes of Prayāga³⁰ and Puṣkara³¹ by mere mention in two and three verses each without dilating on them as *tīrtharājas*, proving the earlier times.

(11) Vārāṇasi³² is conspicuous by its absence in the Dhaumya narration. Connecting this fact with the non-mention of god Śiva in the whole narration, its times seem to be much earlier than the times of the Pulastya narration wherein a number of synonyms of god Śiva appear as connected with various places.

(12) There are no holy places connected with Rāma Dāśarathī in the Dhaumya narration either. Daṇḍakāraṇya³³ is mentioned in the Pulastya narration but is not to be found in the Dhaumya set. This also proves that the age of the Dhaumya narration is prior to the cult of Rāma as a recognised deity or hero.

We think this to be an overwhelming evidence showing a difference of centuries between the two sets of narration of holy spots. If we compare the two lists of places after jotting them down on the map we can form a fairly reliable idea of the directions of Aryan expansion. The actual itinerary of Yudhiṣṭhira in the whole round of India as detailed in further chapters in the *Tīrthayātra* parvan differs materially sometimes from the Dhaumya narration and this makes its authentic nature or contemporaneity doubtful.

It would not be out of place here to imagine a picture of India of those hoary days, days before the times related in the legend of the *Śatapatha Brāhmaṇa*. Most of the land was still covered with woods and there were great impenetrable forests at an interval of some hundred miles each. A *Janapada* or country was made up of forest clearings here and there.

²⁹ Mbh. 3.88.13-16.

³⁰ Mbh. 3.85.13-14.

³¹ Mbh. 3.87.13-15.

³² Mbh. 3.82.69.

³³ Mbh. 3.83.38.

Hamlets, villages and towns were gradually growing. Each kingdom was made up of different geographical tracts containing cleared cultivated central area with adjoining forests, mountains and rivers separating them from the other kingdoms. Thus it is mentioned that after the auspicious "birth of three sons to the Kuru line of princes, the Kurus, the Kuru forests (Jāṅgalaṃ) and the Kuru-Kṣetra, all the three³⁴ also increased" and expanded. This "expansion was made by adding the other (foreign) clans and tribes"³⁵ to the Kuru tract presumably by force, perhaps by persuasion, alliance and amalgamation, due to the just rule and efforts of the Regent Bhīṣma.³⁶ The whole land became prosperous and flowed with milk and honey.³⁷ "In the houses of the leading members of the Kuru clan and amongst the townsmen in general, one always heard the words give and enjoy³⁸ (eat)." Cities were still far and few between and were generally called after the names of the clans whose capitals these were. But here and there nick-names were coming into vogue. Thus the capital city of the Kurus was called (or named) after elephants (*Gajasāhvayam*), that of Jarāsandha was called *Giri-vraja* (mountain-path), that of the Cedis was styled *Śuktimatī* (adorned with pearl-shells) and that of the Vṛṣṇis became known as *Dvāravatī* (with prominent gates). Still these were exceptional, and humble clans and tribes could not boast of such names. Even in buzzing centres of Aryan civilization, however, the forest was still the prominent background. The warrior classes still tried to live by hunting and could easily do so. Going to or living in forests had still not become an unusual adventure. It was a fairly common and natural thing to do. Scarcity of game for hunting would oblige a change of venue. A curious short *parvan* consisting of only one *adhyāya* of sixteen verses vividly depicts this fact. It is significantly styled the *Mṛga-svapna-bhaya-parvan*.³⁹ There the natural phenomenon of denudation of game in a particular area of forest necessitating a change of place is allegorically narrated. All the surviving⁴⁰ beasts of the forest

³⁴ Mbh. 1.102.1.

³⁵ Mbh. 1.102.12.

³⁶ Mbh. 1.102.11.12.

³⁷ Mbh. 1.102.2-11.

³⁸ Mbh. 1.102.14.

³⁹ Mbh. 3.244.

⁴⁰ Mbh. 3.244.5.

came to see king Yudhiṣṭhira in his dream and requested him to leave that part and migrate to some other tract, in view of the impending extinction of their species due to incessant hunting by the Pāṇḍava brothers. Their argument touched Yudhiṣṭhira to the quick and taking pity of those unlucky beasts put in a quandary, he resolved next day, in consultation with his brothers, to go to an adjoining forest in which game had become abundant.⁴¹ This little gem of a story throws a flood of light on those times, proving that the society was still in a half-nomad hunting stage. The countryside was divided into cultivated areas, woods for hunting, pastures with ranches. As large areas were still covered with dense forests which generally separated one populated area from the other, the boundaries of the clan territories were ever shifting. The colonies were known after their clans⁴² but their geographical area was still not fixed. The pressure of more vigorous and aggressive tribes made others move from their areas and seek new ones. The various tribes and their kingdoms brought under tribute by the Pāṇḍava brothers in their conquests of the quarters⁴³ cannot necessarily be found now in the very same localities, as can be proved by comparative studies of those times with the later times. But it can form the subject for a separate essay and therefore we merely mention and leave it there.

To judge from the Dhaumya narration the area of holy spots approved by the Brahmins was spread from the Sutlaj in the West to the river Gaṇḍakī in the East, and from the Himalayas in the north to the Agastya tīrtha in the Pāṇḍya country in the furthest south of the Indian peninsula. But while the area of the Gangetic basin formed the centre of Aryan life, in the rest of the area there were Aryan colonies here and there. Mount Mahendra⁴⁴ which is in the Ganjam district of Orissa only sixteen miles from the sea-coast is noted as an important outpost of Aryan culture.

⁴¹ Mbh. 3.244.13. The Pāṇḍava brothers left the Dvaitavana and returned to the Kāmyaka forest.

⁴² The Ānartas are mentioned as a clan conquered by Arjuna in his northern conquest (Mbh. 2.23.14); In later terms north-Gujarat was called Ānarta. The Colas are similarly placed in the north (Mbh. 3.24.20), though in mediaeval times they were rulers in the south. Similar instances can be multiplied.

⁴³ Mbh. 2.23.29.

⁴⁴ *The Imperial Gazetteer of India*, 17.8 (1908), Mahendragiri—18° 58' N; 84° 24' E, or the same latitude as Bombay.

But then instead of directly proceeding to the south along the sea-board the Aryans seem to have swerved west from the mouths⁴⁵ of the Godavari and colonised the Vidarbha at the centre of the peninsula. This is clear from the mention of the river Veṇṇā⁴⁶ which can be equated with Veṇa-Gaṅgā, and Payoṣṇī⁴⁷ which is identical with the river Pūrṇā rising amongst the hills to the north of Amaraoti and flowing through the present Berar to join the river Tapti in the West. This area was most probably reached by the Aryans by coming direct to the south from the Allahabad region because mount Kālāñjara⁴⁸ in Bundelkhand had become noted in these early times and the sage Agastya⁴⁸ had his āśrama in the same locality. He must have crossed the Vindhya by way of Mandla and descended down the Wain-Ganga valley in the plains below. This is supported by a casual reference in the Nalopākhyāna⁴⁹ also. Nala is standing on the plateau of the Vindhya range and pointing out to Damayanti the various roads leading to the south. From the particular point at which he is standing he can also point out the road leading to Avanti after crossing the mountain Rkavanta in the west. He points out to the highest peak of the Vindhya range in front of him and to the source of the river Payoṣṇī below. This locality is full of the hermitages of great ṛṣis. He also points out the road leading to the Vidarbhas as well

⁴⁵ It must have been practically impossible to go along the coast in those days. South-west of Mahendra the country is hilly for some 150 miles and in those days must have been covered with thick woods. The deltas of the Godavāri and the Kṛṣṇā are even now almost marshes in times of floods and three thousand years ago were possibly like the Sunderbans at the mouths of the Ganges at present. Bhadrācallam is accepted as the place where Rāma crossed the Godavāri on his way to Lanka, in the whole of Telingaṇa country. This place is more than a hundred miles higher up from the mouths of the Godavāri before it enters the gorge of the Eastern Ghats, and significantly enough, above its junction with the river, Śabari, reminding one of the story of the Śabari woman who innocently offered tasted berries to Rama. The Śabara tribe is still to be found in this locality. Curiously enough also, one finds a Badarikā tirtha in Pulastya narration (3.83.13) just before Mahendra but after the (south) Kośales. Can it be connected with the Berry (=Badari) incident mentioned above?—See *Descriptive and Historical Account of the Godavari Dist.* (1878) pp. 3-4, 42 with the map at the end for conviction.

⁴⁶ Mbh. 3.86.3. The river Bhimarathi which goes with Veṇṇā in this verse cannot be equated with the river Bhima which is a tributary of the Kṛṣṇā because the locality is definitely Berars. This name might have been derived from some king Bhīmaratha of the Vidarbhas. A Bhoja prince of this name is mentioned as attending king Yudhiṣṭhira's sacrifice (Mbh. 2.4.20).

⁴⁷ Mbh. 3.86.4.

⁴⁸ Mbh. 3.85.15.

⁴⁹ Mbh. 3.58.20, 22.

as to the (south) Kosalas. Beyond it to the south is the Deccan. With this vivid description the road from the Cedi country to Vidarbha can be properly visualised and almost fixed with certainty. From the Berars the Aryans seem to have walked down along the Tapti valley and descended into the northern Konkan where they created a nucleus at Śūrpāraka⁵⁰ to the north of Bombay. To the south of the Deccan plateau there were colonies of the Aryans in the far south only, as appears from the Agastya tīrtha along the sea⁵¹ coast as well as the Virgins' spot⁵² (Cape Comorin or Kanyā Kumārī). Along the western sea-board, only two points are noted, the locality of Gokarṇa⁵³ with the small river Tāmraparṇī⁵⁴ adjoining it as well as a hermitage of Tṛṇāsomāgni,⁵⁵ a pupil of Agastya ; and Śūrpārka with the altar of the sage Jamadagni.⁵⁶ Then along the coast, Prabhāsatīrtha⁵⁷ on the sea to the south of Kathiawar is also noted together with the Ujjayanta⁵⁸ mount (Girna) as well as Dvārakā⁵⁹ at the westernmost point of the peninsula. It is curious to note that Kathiawar is included in the southern quarter in the Dhaumya narration and not in the West. On the other hand Avanti, the river Narmadā, "the river of Viśvāmitra", the Yayātipatana spot, the mounts Maināka and Asita together with Saindhavāranya, and last but not least the lake Puṣkara, are all included in the west.⁶⁰ This shows that Malwa, Gujarat and Rajputana of the present day were treated as the west in those times.

⁵⁰ Mbh. 3.86.9 == Sopāra to the north of Bombay.

⁵¹ Mbh. 3.86.10. It is to be equated with the modern Agastiampalli, because it is given as a Vāruṇa (sea) tīrtha situated in the Pāṇḍya country. A temple of Agastya is still to be found there. It is the extreme south-east point.

⁵² Mbh. 3.86.11 ; 83.21.

⁵³ Mbh. 3.86.12.

⁵⁴ The Tāmraparṇī here is the small stream at Gokarṇa and not the great river of that name in the Tinneveli District to the north of Cape Comorin, because the syntax of the passage (3.86.11,12) connects it with Gokarṇa only (See *Sacitra-Bhārata-Pravāsa-Vaṇana* (1912), a Marathi book—p. 47).

⁵⁵ Mbh. 3.86.14.

⁵⁶ Mbh. 3.86.9.

⁵⁷ Mbh. 3.86.17.

⁵⁸ Mbh. 3.86.18.

⁵⁹ Mbh. 3.86.21.

⁶⁰ Mbh. 3.87.

This description shows that the Aryans of the Gangetic valley had already separated from the early Aryans of the Indus basin and come to look upon them as outside the pale. The Madhyade'a of Manu was already in formation as an ultra-orthodox Aryan centre. But still the catholicity of early Aryan mind had not quite dried up and outside centres of Aryan culture were still recognised as holy and approachable. Except for the fringe of sea-coast low-lands surrounding the whole of the Deccan, the Aryans had not penetrated much inside. To the east, much of Bihar and Orissa as well as the whole of Bengal were still uncolonised, though not necessarily unknown. The central forests of the Vindhyan range were also not penetrated except for the chief paths and passes leading to the south. These are the times when visiting of certain lands like Aṅga, Vāṅga and Kāliṅga was an offence requiring initiation for the second time with expiatory rites.⁶¹ This bar does not seem to have come into operation after the Jaina and Buddhist successions, for there is no hint of a danger from that quarter.

The Pulastya set of narration which is much inflated when compared to the Dhaumya narration, is still keeping within certain geographical bounds. To be sure, the boundaries of Aryandom had expanded reaching almost the river Brahmaputrā in the east.⁶² The south becomes spotted with more holy places and places connected with Rama Dāśarathī are inserted⁶³ throughout the centre. To the west also the boundary has expanded upto the mouth of the Indus⁶⁴ showing that the religious bar had been slackened a little. Still it is curious to find that Benares is disposed of in one verse and only one tīrtha named Kapilāhrada⁶⁵ is mentioned in connection with it. Lord Viśveśvara has still not come into his own, showing that the times are still comparatively earlier. In fact it represents post-Buddhist period. For the rest certain localities are forming their own Mahātmyas and one whole Adhyāya (Mbh. 3.81) is entirely devoted to the Kurukṣetra area. It may be even a much later interpolation if we look into its details and a distinctly mediæval outlook.

⁶¹ B. C. SEN, *op. cit.*, p. 21. Baudhāyana and Vasīṣṭha put the limit to Āryāvarta at Prayāga, *Ibid.*, p. 15.

⁶² Mbh. 3.83.2, 3.

⁶³ Mbh. 3.82.63, 66, 95, 113, 93, 83.38, 39, 55, 62.

⁶⁴ Mbh. 3.80-85, 95.

⁶⁵ Mbh. 3.82.69.

Just as Gayā Māhātmya though inserted in the Vāyā Purāna has been proved after detailed examination to belong to the 13th or 14th⁶⁶ century, similarly some portions of the Pulastya tīrthayātrā like this Kurukṣetra Adhyāya may prove to be later interpolations. The whole outlook and spirit of the Pulastya narration are different in kind from those of the Dhaumya narration. A man is awarded fabulous returns for the insignificant investment of bathing in some small pool of water. Pulastya tells in so many words that his enumeration is meant to substitute⁶⁷ tīrthas in place of costly yajñas requiring much wealth, collection of various articles and instruments and the efforts of many persons. As this is possible only for very rich individuals or kings, the tīrthayātrā is substituted for the benefit of indigent persons. While washing away of sins, providing for the ancestors and in general the acquisition of holy spirit were the benefits expected by visiting holy places in the Dhaumya age, anything and everything is made available in the Pulastya age, showing that now tīrthayātrā had become a business of idle Brahmins subsisting on the good deeds of their ancestors and using their good names as capital for plying their nefarious trade.

To come back to the geographical field, the pilgrim's itinerary detailed in these narrations and elsewhere in the Mahābhārata deserves comparative study. It throws some light on the roads which the Aryans took in their expansion. It appears that at first they took a northerly route when coming down the Gangetic basin. Instead of coming down to Agra from the Ambala-Delhi region they would go south-east by crossing the Ganges to the north of Hastināpura, and enter the Naimiṣa forest on the banks of the present Gomatī river, through what afterwards became Uttara Pāñcāla country.⁶⁸ Then they would enter Kosala on the banks of Śarayū but would not go further. Thence they again took a south-eastern direction and after crossing the Ganges would go to Gayā.⁶⁹ Thence they returned along the southern banks of the Gaṅgā and the Yāmūnā. The small river Karmanāśā which one has to cross when going to Gayā from Benares probably keeps up the memory of the times when it was a religious offence to go beyond that boundary. When the Aryans

⁶⁶ B. M. BRUA, *Gaya and Buddha Gaya*, (1934), 1. 64.

⁶⁷ Mbh. 3.80.34, 40.

⁶⁸ Mbh. 1.207.4, 7; 2.26.3, 4; 3.93.2, 5, 9.

⁶⁹ Mbh. 3.85.5, 6; 93.5, 9.

had taken the second step going beyond the original pale by crossing the river Sadānīrā, which may be either the Rapti or the Gandak, they still kept a northerly route as far as possible and that way reached Assam via north Bengal. The river Karatoyā⁷⁰ seems to have been their boundary on that side for some time. Thence they came down to the mouths⁷¹ of the river Ganges and took a south-westerly route through the present Orissa.⁷² A forest route⁷³ through Chhotā Nāgpur connecting the mouth of the river Ganges with Gayā seems to have been developed from an early time. But that was after the Aryans had already crossed the Vindhya. The first southern route seems to have been through the Central Provinces.⁷⁴ Thence via Berar and the Tapti valley, they seem to have entered Konkan.⁷⁵ Perhaps already a west coast sea-route had been in existence or was being developed by the forward Aryans. Otherwise it is difficult to account for the far-separated places along the coast in Dhaumya's southern itinerary. Cape Comorin⁷⁶ in the extreme south; Gokarna⁷⁷ some five hundred miles up to the north; thence again a leap of 350 miles to Sūrpāraka,⁷⁸ thence giving a clean sweep to the gulf of Cambay, to Prabhāsa-Pattan⁷⁹ in south Kathiawar—a distance of two hundred miles by the direct sea-route—; and finally Dvārakā,⁸⁰ the westernmost point of the same peninsula. This cannot be explained unless we imagine a direct sea-communication, because no intervening inland places have been noted by Dhaumya at all. The first land-route to the extreme south seems to have been developed along the eastern border. We have already noted that the Aryans had early reached Mount Mahendra on the Bay of Bengal, presumably from the Citrakūṭa-Kālāñjara region in Bundelkhand which originally formed the Cedi country. A forest-route via Mount Amaraṇṭaka, after visiting the sources⁸¹ of the rivers Narmadā and Śoṇ and passing through the Dakṣiṇa Kosala

⁷⁰ Mbh. 2.27.22, 24.

⁷¹ Mbh. 1.207.10, 13; 3.114.1, 2.

⁷² Mbh. 1.207.13; 3.114.3, 4, 26.

⁷³ Mbh. 1.207.1, 9, 11; 2.27.14, 16, 17, 20, 22, 23.

⁷⁴ Mbh. 3.83.8-16, 85.15, 16, 86.3-5.

⁷⁵ Mbh. 3.86.2-9.

⁷⁶ Mbh. 3.86.11; 1.209.11; 3.118.4.

⁷⁷ Mbh. 3.86.12; 1.209.24.

⁷⁸ Mbh. 3.86.9; 118.8; 1.210.1.

⁷⁹ Mbh. 3.86.17; 118.15; 1.210.2.

⁸⁰ Mbh. 3.86.21; 1.210.15.

⁸¹ Mbh. 3.83.8, 9,

seems to have reached Mahendra in Orissa. At present this route is represented roughly by the Katni-Bilaspur-Raipur-Ganjam railway line. Afterwards this point was joined to the westernmost mouth of the river Ganges by a route through Orissa but not along the sea coast. King Yuddhiṣṭhira, after bathing at the point where the Gangā reached the sea, came to Mahendra via this route, after crossing the river Vaitaraṇī.⁸² Arjuna also went on his round to Mahendra after crossing the Kalingas.⁸³ By the times of the Pulastya version, Śrī-Śaila⁸⁴ shrine on the Krishna to the south of the present Nizam's territories seems to have been also marked as their own by the Aryans. Agastya-tirtha of the Dhaumya narration seems to be represented by the Agastiampalli⁸⁵ just to the north of the Point Calimere at the south-east corner of the extreme south. From this point one can cross over to the extreme north-point of Ceylon by sailing for less than fifty miles.

Compared to later times, the Aryans of the *Mahābhārata* age were in close contact and communication with the trans-Himalayan⁸⁶ peoples. The sources of the Ganges and the Jumna were cherished and held fast and dear. Racial memories were still imbedded in the earlier homes beyond the borders of *Bhāratavarṣa*. Poets waxed eloquent over those icy, barren, blasted lands with imaginary fond memories. Fabulous things were talked of those lands and the peoples were often treated as either superhuman, non-human or godly. At the same time the Nepal valley does not seem to have been developed still. Kirāta⁸⁷ tribes were supposed to be living there and these were in regular communication with the Aryans. Kirāta women⁸⁸ were valued and sought for as slaves. But their forests were impenetrable and dangerous. The north-west with Kashmir⁸⁹ was more known and in constant communication. A trans-Himalayan plateau route from the sources of the Indus, the Sutlaj and the Brahmaputrā to the east seems to have been in existence from very early times. Skirting the north bank of the Brahmaputra on the Tibet plateau, it went to the north of Bhutan and thence descended into the

⁸² Mbh. 3.114.3, 4.

⁸³ Mbh. 1.207.13.

⁸⁴ Mbh. 3.83.16 'Śrī-parvata on the river bank' is to be identified with Śrī-Saila,

⁸⁵ *Madras District Gazetteer—Tanjore* (1906), p. 284. It has a temple of Agastya.

⁸⁶ Mbh. 2.23, 24, 25; 3.140-153; 155, 160, 163, 164.

⁸⁷ Mbh. 2.27.13; 23.19.

⁸⁸ Mbh. 2.48.10.

⁸⁹ Mbh. 2.24; 48.3, 14.

Assam valley and Bengal. Arjuna came in along this road and conquered Bhagadatta,⁹⁰ the Mleccha king of Prāg-jyotiṣa (Eastern Light) in his northern conquest. This indirectly supports the theory that the Aryans had not gone beyond the Sadānira in those early times. For the rest the itineraries of the four Pāṇḍava brothers in their conquest of the quarters seem to have been much tampered with and full of later interpolations, taking even a cursory view of the same.

What strikes a student of geography as strange is the support of Kālidāsa to the existence of the same early path in his itinerary of King Raghu.⁹¹ Raghu also in his conquests *did not cross the Ganges*,⁹² but went to the conquest of the south instead, from the mouths of that river. After finishing the south, the west up to Persia⁹³ and the north-west, he after passing along Mount Kailāsa⁹⁴ on the Tibet plateau, *crosses the Brahmaputra (Lohityā)*⁹⁵ into Prāgjyotiṣa, which is again treated as separate from Kāmarūpa⁹⁶ or the present Assam valley. The commentator Mallinātha is clear on this point, but all the later scholars have confused and identified Prāgjyotiṣa with Kāmarūpa.⁹⁷

Certain broad facts thus emerge from our study. First that the Aryans had, before going to the east, crossed over into the Deccan. Secondly that the southern land route lay along the east-coast and through the centre of the peninsula. Thirdly the west coast was probably discovered by the sea-route. Fourthly the sandy tracts of upper Rajaputana were early colonized. And lastly that a great trans-Himalayan route was in constant use from these early times.

Identifications of various points and places with filling in of details, together with the naming in of countries, wild tracts, mountains, rivers and lakes, will form a separate study.

⁹⁰ Mbh. 2.23.17-19; 47.12, 13.

⁹¹ *Raghuvaṃśa* IV.

⁹² *Ibid.*, IV. 36.

⁹³ *Ibid.*, IV. 60.

⁹⁴ *Ibid.*, IV. 80.

⁹⁵ *Ibid.*, IV. 81.

⁹⁶ *Ibid.*, IV. 83-4.

⁹⁷ Hemacandra in his *Abhidhāna Cintāmaṇi* (IV.22) says, "Prāgjyotiṣāḥ kāmārūpāḥ", but from the *Mahābhārata* and *Raghuvaṃśa* data, Prāgjyotiṣa seems to have included the slopes of the Himalayas with Nepal, Bhutan as well as Assam, together with the Tibet plateau adjoining these.

MAHĀBHĀRATA CITATIONS IN THE ŚABARA BHĀṢYA

By

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§1. Śabara's Bhāṣya on the Pūrva-Mīmāṃsā sūtras of Jaimini is replete with verse—and prose—quotations from Vedic literature. From post-Vedic literature the number of verse-quotations (quoted in full or in part) is only twenty-six, prose-quotations being almost negligible. Of these twenty-six, one is from the Nirukta¹; two occur in the fairly late Pāṇinīya Śikṣā² and the remaining verses are either *subhāṣitas* or elucidate some technical points. The latter for the most part, appear to have been drawn from the floating mass of poetic dicta—proverbial or technical—as is clear from their introductory remarks like ' *evam āmananti* ', ' *ślokaṃ apy udāharanti* ', ' *ślokaś ca bhavati* ', etc.³

§2. Only three of these metrical passages appear to have been borrowed from the Mahābhārata. Of these two are traced to other texts also and the third appears to be the paraphrase of a verse-part from the Mbh.⁴ 2.59.11. It is the purpose of this paper to discuss the various problems connected with these apparent citations from the Mahābhārata. We shall therefore take them one after another :

§3. [*api ca svāminas tayā karma kartavyam. na tat parityajya svakarmārhati kartum. yat tayānyena prakārenopārjyate tat patyur eva svam bhavitum arhatīti, evaṃ smarati :*]

*bhāryā dāsaś ca putrāś ca, nirdhanāḥ sarva eva te |
yat te samadhigacchanti, yasya te tasya tad dhanam || iti |*

—Śabara on JS VI.i.12.

Translation.—[(Again), it is the duty of a woman to work for her husband ; it does not behove her to neglect it and do any work on her own account. In fact, whatever she might earn in any other manner would be the property of her husband. There is a *smṛti*-passage (to the same effect) :] ' The wife, the slave and the son—all are devoid of (the right to) property ; whatever they earn is the property of him to whom they themselves belong.'

¹ 2.4.

² See verses Nos. 9 and 52.

³ Vide *Bhāṣya* on JS. IV.iii. 2, IV. iv. 24 ; IV.iv.28, etc.

⁴ The references are throughout to the Critical Edition, unless otherwise specified.

Context : The question discussed by the Bhāṣya on JS VI.i.6-16 is whether or not women are entitled to perform Vedic sacrifices. The Pūrvapakṣin argues that they are not, because they cannot independently undertake a sacrificial performance which involves the use and dispensation of family-property to which they have no right. The above verse has been quoted as an authority on this point, since it purports to say that a woman must do the work of her husband ; she should not labour on her own account, to the neglect thereof. Anything she earns (for herself) in some other manner [i.e. by cooking or stitching (for other people)], becomes the property of her husband alone. [The Siddhāntin, of course, refutes this view by pointing out two passages from the Śruti⁵ (the final authority in such matters) to the effect that women do possess such a right and consequently are entitled to perform sacrificial rites prescribed in the Vedic texts.]

Notes : Our verse has parallels in the Manusmṛti VIII.416 as well as in the Mahābhārata i.77.22 (repeated again in 5.33.57). This is just what is expected as the present verse is introduced with the words *evam smarati*, which clearly indicate that it is a *smṛti*-passage rather than a *śruti*-one. This, however, leaves the question open as to which of the two above-mentioned texts (the Manusmṛti or the Mbh.) is the source of our quotation, because the term *smṛti* is wide enough to cover both the texts. [See the Bhāṣya on JS X. iv.23 where *smṛyate* refers to *Itihāsas* and *Purāṇas* under which general category we include the Mbh. ; or the Mbh. may be said to be included under the wide term *śiṣṭācāra* (Bhāṣya on JS I.iii.5-7) ; works falling under which category are placed under the *smṛti*-class as the *Vārtikākāra* (Kumārila) actually does, when he illustrates *śiṣṭācāra* by references to the contents of the Mbh.-stories]. Hence we must discuss the reading of the verse to settle the problem of the source-text :—

Manu's version differs very slightly from the Bhāṣya-one and that only in the first hemistich (*cb*) which runs :—

bhāryā putras ca dāsaś ca nirdhanāḥ sarva eva te ;

the second hemistich (*cd*) being identical. Mbh. I.77.22ab (=V.33.57ab)

⁵ Vide Bhāṣya on JS. VI.i.16 : (1) " Patnī vai pāriṇaṣṭyaśeṣe patyaiva gatamanumataṁ kṛiyate ". (cf. TS 6.2.1.1) ; (2) " Jāghanya patnīḥ saṁyājayanti, bhasadvīryā hi patnayaḥ bhasadā vā etāḥ paraḡṭhanamā īśvayamavarundhata iti."

has a different version of the first hemistich of the Bhāṣya quotation :—

traya evādhanā rājan bhāryā dāsaś tathā sutah | ;

cd in both the *parvans* are each identical with the *cd* of the Bhāṣya-version. The critical apparatus, in the critical edition of the Mbh. gives the following variants under I.77.22b ; D₁T₂G₆ transp. *tathā* and *sutah* and the following under V.33.57b : D₁ *bhāryā dāsaś tathā sutāḥ*. The following variants are recorded in the critical apparatus under I. 77.22^d and 5.33.57^d respectively :

$\tilde{N}_{1.2}$ B₁ Dn D_{1.4} S *yasyaite* and D_{1.7} S (except T₁G₂, etc (for *te*).

Though the second hemistich of the Mbh.-verse in the two *parvans* in which it occurs thus agrees with the corresponding part of our verse, the first one differs inasmuch as *pādas a* and *b* exchange places and *nirdhanāḥ sarva eva te* (=the *b* of the Bhāṣya—version) is not supported in the *b* of either the critical edition or any of the other editions, as seen from the extracts from the critical apparatus quoted above.⁶ It is true that the Manusmṛti-version also differs from the Bhāṣya-one, since it has *putraś ca dāsaś ca* instead of *dāsaś ca putraś ca* in the Bhāṣya ; but the change is merely of the nature of an exchange of places between the two words and therefore insignificant and inconsequential. One must also bear in mind that in śabara's quotations, *strict adherence to the order of words in the original or exactness of reproduction is often wanting* as the study of all quotations from the earlier literature—Vedic and post-Vedic—in the Bhāṣya reveals. So then the Manusmṛti-version rather than the Mbh.-one, of 'the floating proverbial wisdom of the philosophical and legal schools which already existed in metrical form',⁷ is nearer to our verse ; and this is in keeping with the

⁶ Is it possible to draw any inference regarding the comparative dignity of the " *bhāryā* " in the eyes of the author according as he puts in immediate juxtaposition the word for a servant or a son after the word for the wife ? It may be noted that the Mbh.-order of the three words is nearer to the order in the Śabara Bhāṣya.

⁷ BÜHLER SBE25.XC. While discussing the relation of the *Manusmṛti* and the Mbh., Bühler rightly observes that the conclusion that " the materials, on which both works are based, were not systematic treatises on law and philosophy, but floating proverbial wisdom is 'made unavoidable by the peculiar character of the differences found in closely connected *ślokas*, by the occurrence of identical lines and *pādās* in verses whereof the general sense differs, and by the faint shadowy resemblance in words and ideas, observable in other pieces ".

words ' *evam smarati* ' with which the quotation is introduced—a form of introduction not used by the Bhāṣya while quoting from the Great Epic, as will be seen from the next two citations from that work. (See also our remarks at the end).

§4. The second quotation occurs in the following Bhāṣya passage :—

[*yat putrasya phalam ātmanḥ sā prītiḥ*.....
etām evātmanḥ prītim abhipretya bhavati vacanaṁ ātmā vai putra ' iti ;
āṅgād āṅgāt sambhavasi hṛdayād abhi jāyase
ātmā vai putranāmāsi sa jīva śaradaḥ śatam|| iti.

—Śabara on JS. IV.iii.38.

Translation : [Whatever good result accrues to the son, it brings pleasure to the (father's) self.....It is with reference to this very pleasure of (the father himself) that such assertions are made as : " The son is verily (one's own) self ' and] ' Thou art born (limb by limb), from each limb of mine ; art generated from my heart ; thou art my own Self with the name *putra* ; mayest thou live for a hundred autumns '

Context : In the course of a description of the *vaiśvānareṣṭi*, the Taittiriya Samhitā 2.2.5. lays down that the reward in the form of glory and wealth arising from it, accrues not to the sacrificer himself but to his son—a person different from the sacrificer. In this connection, the Bhāṣya observes that the apportionment may be strange but not incongruous as the son is too closely related to the father, to be treated as a different entity. The father again has all his interests (spiritual and material) centered in the son. This proposition is next supported by the above citation which purports to say that the son is born from out of the limbs of the father as it were, and is generated from his heart ; (in short) he is (his own) Self reproduced with the name, *putra* i.e. ' son '.

Notes : Now the earliest text where this verse occurs in an almost identical form is a *Śruti*—one viz. the Śatapatha Brāhmaṇa⁸ wherein its two hemistiches have been commented upon in two separate places. The Śatapatha Brāhmaṇa version of the verse is found also in the Kauṣītaki Brāhmaṇopaniṣad⁹, in the Āśvalāyana¹⁰, Hirayaṅkeśi¹¹, Mānava¹², and Pāraskara¹³—Gṛhaysūtras, in the Āpastamba Mantra—Brāhmaṇa¹⁴; in the Nirukta¹⁵. All these texts read *adhi-jāyase* instead of the Bhāṣya

⁸ 14.9.4.8.26.

⁹ 2.11.

¹⁰ 1.15.9.

¹¹ 2.3.2.

¹² 1.18.6.

¹³ 1.18.2.

¹⁴ 2.11.33.

¹⁵ 3.4.

abhi-jāyase in the second *pāda*. The Mbh.-verse (I.68.62) has, however, an absolutely identical version.

Now, it is interesting to note that for the Mbh verse, the critical apparatus gives the following account of variants in *pāda b* :

K₀ N V₁ B₃ D (except D_{1,2}) S ⁰*yādadhijā*⁰

The variant *adhijāyase* which is more in agreement with the Vedic texts enumerated above, has been rejected by the Editor. There may thus have been a deliberate attempt on the part of the copyists of the Mss. whose evidence is rejected, to restore the citation to its Vedic form. This is an illustration of one of the tendencies responsible for the *differentiae* in some Mss. of the Mahābhārata, to which attention has been drawn by Dr. APTE in his article 'Rgveda Citations in the Mahābhārata,' in the following words¹⁶ : "The question, whether a passage from an early Vedic text is a citation with or without modifications is further complicated except in the critically edited *parvans* by the peculiar, though interesting circumstance that some manuscript variants actually restore the citations to their pristine purity. In the *parvans* already critically edited, we know exactly what reading of the suspected citation is favoured by the manuscript evidence and thus are in a position to decide at once, whether we have to deal with a citation or an *ūha*. But in the case of other *parvans* not so edited yet, this is by no means certain unless one examines the manuscript collations for that *parvan*. The fact, nevertheless, that some manuscripts give a version identical with the source-passages in its original form throws an interesting sidelight on the tendencies at work responsible for the *differentiae* in some manuscripts" We shall not therefore be wrong to suppose that the Mbh. is the source of Śabara's quotation rather than any one of the earlier Vedic texts mentioned above. However, the possibility, though remote, is not excluded, that Śabara is quoting inaccurately from one of the Vedic texts !

5. Now follow two separate passages in the Bhāṣya both containing our third quotation in two separate contexts :—

1. [*dr̥ṣṭaviruddham api bhavati kīncidvacanam, pātracayanam vidhāyāha : sa eṣa yajñāyudhī yajamāno 'ñjasā svargam lokam yāti' iti pratya-kṣam śarīrakam vyapadiśati. na ca tat svargam lokam yāti. pratya-kṣam hi taddahyate.....evamjātiyakam pramāṇaviruddham*

¹⁶ A Volume of Studies in Indology presented to Prof. P. V. KANE, p. 28.

vacanamapramāṇam] 'ambuni majjantyalābūni, grāvāṇaḥ plavanta' iti yathā.

—Śabara on JS. I.i.5.

Translation : [(Further), there are certain passages in the Veda which declare something that goes counter to direct preception ; (for instance), when having enjoined the collection of sacrificial implements (on the death of the sacrificer), the Veda says that 'the sacrificer thus equipped with the sacrificial implements goes straight to the heavenly world', it pointedly refers to the dead body. Now, the body never goes to the heavenly world as it is burnt before our very eyes. A statement of this type, opposed to direct evidence, is as unauthoritative] as statement like 'gourds sink in water (and) stones float ?'

2. [*Nanu, vaidikāni karmāṇi phalavanti bhavantītyevam uktam. ucyate, phaladarśanāt tāni phalavantītyuktaṁ, na vaidikātvāt. evaṁ tarhi kartavyatāvagamāt phalavantīty adhyavasyāmaḥ. sukhaphalam hi kartavyaṁ bhavātīti, ucyate, pratyakṣaviruddhaṁ evāmjātyīyakasya kartavyatvam. sākṣād dhi tad duḥkḥaphalam avagacchāmaḥ. na caivāmjātyīyakam pratyakṣaviruddham vacanaṁ pramāṇam bhavati.*] yathā'mbuni majjanty alābūni, śīlaḥ plavante, pāvakaḥ śīta' iti.

Śabara on JS. IV.iii.10.

Translation : [(If it be objected), 'it has been declared that acts prescribed in the Veda are fruitful',—the answer is that the acts have been determined as fruitful because of the actual mention of the reward (following their prescription); not simply because they have been prescribed in the Veda. (If the objector now says), 'even so, we determine that they must yield rewards because they are known as prescribed (in the Vedas). A prescribed act must bring about a happy result. In answer to this (Pūrvapakṣin continues) : Then the prescriptive character of such an act is opposed to the direct evidence of the senses, because it is directly perceived that it yields disagreeable results. No prescriptive statement of this type that is opposed to the direct evidence of the senses, can have authority,] like the statement (in common parlance) 'gourds sink in water, stones float, and fire is cold' (which can have no authority whatsoever).

Context : (1) On JS I.i.5, the Bhāṣya leads up to the Siddhānta-view that Vedic statements are infallible and hence they alone are the final

authority in religious matters, after a rebuttal of the Pūrvapakṣin's argument that since there is many an irrational and absurd statement found here and there in the Veda, it cannot have any injunctive force. To illustrate his point of view, the Pūrvapakṣin selects the Śruti statement, 'sa eṣa yajñāyudhī yajamāno'njāsā svargam lokam yāti' [=This sacrificer after death equipped with sacrificial implements, goes straight to heaven'], as an example of sheer absurdity, because it declares something which is inconsistent with the direct evidence of the senses. The dead body along with the sacrificial implements, is actually burnt to ashes ! The Śruti-statement therefore, can be matched only by an irrational and absurd statement in common parlance, like the one quoted above, which means 'gourds sink in water and stones float !' [This argument has been answered of course, by the Siddhāntin by the postulation of an immortal soul which disentangles itself from the mortal frame, long before it is burnt up and is therefore in a position to go upto heaven equipped with all the implements in a subtle (or *līṅga*) form.]

(ii) The purport of the second passage and its context are as follows :— In the course of a discussion under JS IV.iii:10, regarding the rewards of Vedic injunctions, the Pūrvapakṣin points out that there are certain injunctions in the Veda, like 'sa viśvajitātīratreṇa sarvaprṣṭhena sarvas-tomena sarvavedasadaḥṣiṇena yajeta',¹⁷ which includes no reference to any reward for the act enjoined therein. How on earth could a man be persuaded to undertake an elaborate undertaking like the *viśvajit* sacrifice which not only brings no reward but on the contrary (positive) misery (owing to the giving away of all property as *daḥṣiṇā*) ? This passage thus enjoins something very unpractical and competes in its ignorance of human nature and absurdity with the secular passage quoted above.¹⁸ [The Siddhāntin, however, postulates heaven as the general reward for all sacrificial rites for which no specific reward has been mentioned, and thus provides a human motive or purpose.]

Notes : As regards the quotation 'ambuni etc.', occurring in these two places in the Bhāṣya we find that the two versions are varying

¹⁷ cf. Apś. 14.23.1.

¹⁸ We would like to point out that the *subhāṣita* as an example of an irrational statement is not very aptly quoted here in support because a psychological error in making a prescriptive statement incomplete owing to a serious omission, is not on a par with a patent absurdity that goes counter to an actually observed fact. The *subhāṣita* is quoted in a comparatively better context in the former of the two places in the Bhāṣya.

paraphrases of a part of the Mbh.—verse 2.59.11*, the whole of which reads as :

majjanty alābūni śilāḥ plavante
muhyanii nāvo'mbhasi śasvad eva |
mūdho rājā Dhṛtarāṣṭrasya putrah
na me vācaḥ pathyarūpāḥ śṛṇoti ||

We now take up for discussion, the treatment of this original in two separate contexts in the Bhāṣya ; one after another :

[No. 2 above]. Bhāṣya on JS IV.iii. 10 : Śabara has spoilt the metrical character of the first *pāda* of this verse while quoting it, by prefixing *ambuni* to it. He did so apparently to avoid quoting the second line which contains the necessary synonymous word *ambhasi* and to make it self-sufficient in its sense and syntax. If we remove *ambuni* in the beginning and the additional words *pāvakaḥ śitah* at the end of the quotation, we restore the original metrical form ; but the additions at the two extremities give the whole passage so different an appearance that the original Mbh. verse-part becomes very hard to detect.

[No. 1 above]. Bhāṣya on JS I.i.5 : Here there is no extra addition at the end but the restoration of the original meterical form after the removal of the prefixed *ambuni*, is still not possible, because the Bhāṣya here makes a substitution namely, ' *grāvāṇaḥ* ' for ' *śilāḥ* ', and thus completely obliterates the metrical character of the original verse-statement.

§6. Thus we find two unquestioned quotations from the Mbh. occurring in the Bhāṣya. The introductory formula in both these cases, is simply *vacanam* (= ' so it is stated ') and is distinct from that which introduces a quotation from recognized *smṛti*-works. Though a number of treatises dealing with religious topics incidentally, like the Mbh., are also included under the term ' *smṛti* ' (used in its wider sense), Śabara appears to be making a distinction between such treatises and those that deal principally with religion like the *smṛti*-works of Manu and earlier Vedic works like the Sūtras, from the manner of his introduction of quotations from the former class of works which are never introduced with words like *evam smaranti, iti smaryate*, etc. Such a distinction was mainly due to the fact that the hieratic contents of the *smṛtis* of Manu and others, endowed them with greater authority in the eyes of the Bhāṣyakāra than

was warranted to the Mbh. inspite of its relatively earlier chronological position, *vis a-vis*, the former works. Some parts of the Great Epic may be even older than some parts of the Manusmṛti and are definitely so than the later *Smṛtis*. The Mbh. is as much a *Dharmaśāstra* as an *Itihāsa*, but the popular (and therefore less authoritative !) character of the Epic, recited as it was, before all types of people—the classes and the masses,—apparently lowered its authority as compared to the *Smṛtis* in the eyes of the Bhāṣyakāra. This has an exact parallel in the inferior authority attaching to the *Atharvaveda* as compared with *Sāma*—and *Yajur*—*vedas* irrespective of any consideration of relative chronology.

ON THE SOURCES OF VILLIPUTTŪRĀR-BHĀRATAM

By

C. R. SANKARAN and K. RAMA VARMA RAJA

In this paper an attempt is made to compare the Tamil *Villiputtūrār-bhāratam* with the critical edition of the Mahābhārata* with special reference to the Southern manuscript versions in order to throw light on the important question whether and how far the Tamil work is based upon the Great Epic as it was known to its author. We have confined ourselves only to an examination of the Ādiparvan and we have used the excellent edition of V. M. GOPALAKRṢNAMĀCĀRYA's *villiputtūrār-bhāratam*.

Apparently, Villiputtūrār who lived in the latter part of the 14th century A.D. intended to write an epitome of the great work and he had before him an already abridged version in Agastya Pandita's *Bālabhārata*, a poem in 20 cantos relating the whole story of the Mahābhārata beginning with the origin of the Kuru line of kings from the Moon. This Agastya was a poet at the court of King Pratāparudradeva of Warangal¹ and was probably patronised by King Sangama and Bukka I of Vijianagar. Agastya's poem is said to be highly musical,² and remarkable for its felicity of expression. The Tamil work is also equally remarkable for both these qualities.

* Published by the Bhandarkar Oriental Research Institute, Poona, 1927-ff.

¹ Villiputtūrār lived in the latter part of the 14th century A.D. Vide V. M. GOPALA KRṢNAMĀCĀRIĀR's edition, p. 9.

² M. KRṢNAMĀCĀRIĀR, *History of Classical Sanskrit Literature*, Madras, 1937, p. 214. We had no access to *Bālabhārata* either in print or in manuscript. All the references to *Bālabhārata* in this paper are based on statements found in V. M. GOPALA-KRṢNAMĀCĀRIĀR's edition of the Tamil work, in the Tamil commentary provided therein. It is therefore needless to point out that the problem of the indebtedness of Villiputtūrār to Agastya itself requires a more thorough and detailed investigation and requires a special and separate treatment.

It must be noted here that Villiputtūrār himself says that he based his work on the Mahābhārata. Cf.

*kaṇṇapākameykalippatōraḷappirōḷkataimun
bonṇapāvalanru kaḷarucukaṇṇiruttātai
yaṇṇabhāratantannaiyōr arivilēṇuraippa
tenṇapāvamarrenṇai yinṇen colatulakē
Tarcirappāpayiram stanza 5.*

“What will not the world say exclaiming ‘what a folly!’ since I, a fool, have ventured to write the Bhārata, the old sacred story composed by the famous Vyāsa, father of the flawless Śuka”.

In the following stanzas (6, 7 and 8) he says further that Vyāsa’s great work is equal to the Veda, immeasurable in extent and Villiputtūrār composing this work again would look like a dumb person enquiring of the extent of the vast expanse of the sky or a blind man attempting to see it. “Vyāsa who knew fully all the Vedas has composed the famous epic. To render it in Tamil, I would mar its charm through infelicitous expressions. May the learned forgive this fault of mine. Gods and sages well versed in the sacred lore are engaged in fathoming the inexhaustible charm of Vyāsa’s work. What can I understand in this? But I have ventured to write only because Mādhava’s story is met with at every stage here.”

*maṇṇumādhavan caritamum itaiyiṭai vaḷanṇu
menṇumācaiṇāl yāṇumitiyamputarṇicainṇēn
ib. stanza 8, lines 3 and 4³.*

One is tempted to compare these lines with the following, which D₄ m. 9 (incomplete), 10-12 T. G (except G 1, 6, 7) insert after 1.1.23 in the Mbh. (notes p. 7).

*namo bhagavate tasmai Vyāsāyāmitatejase
yasya prasādād vākṣyāmi Nārāyaṇakathāmimām.*

What is important in these introductory stanzas of the Tamil work is that there is not even one reference to Agastya’s Bālabhārata. Of course the *argumentum ex silentio* is notoriously fragile. In this connection we might mention that in stanza 17 of the first Sarga Villiputtūrār refers to the extensive Yayātyupākhyāna found in the Mbh. (1.70.80) which seems to have been omitted altogether by Agastya.

³ Cf. stanza 1. Sambhava Sarga, cf. stanza 1. Vāraṇavata Sarga.

In the first Sarga, the Kurukula Sarga of the Tamil work we meet with a puzzling statement that Candra was born to the fire *cittirakṣanan mukattinum pirantolicirantōn* (stanza 5, line 4). Soma and Agni are reckoned as joint fathers of gold.⁴ Soma is the son of Atri.⁵ A large number of scholars agree that in a few of the latest hymns of the *R̥gVeda* (the 1st and 10th books), Soma is already identified with the Moon. In the post-Vedic literature, Somā is a regular name of the Moon. Now, if the 'Vena' hymn of the *R̥gVeda* (X. 123) is looked upon as a hymn to Soma, then it may be pointed out that v. 2 refers to Vena as the son of the Sun. Villiputtūrār has probably this as his basis and some purāṇic version too.⁶ In the *Harivaṃśa* also there is an allusion to the Moon being born to Atri.⁷

In the seventh stanza there is an allusion to Manu's son Ilā being metamorphosed into a girl (Tamil Ilai corresponding to Sanskrit Ilā) through a curse of Pārvatī as he entered into a prohibited forest. In the *Mahābhārata*, Ilā is spoken of as Vaivasvata Manu's offspring :—

*Venam Dhr̥ṣṇum Nariṣyantam Nābhāgekṣvākum eva ca
Karūṣam atha Śaryātim tathaiivātrasiāmim Ilām
Pr̥ṣadhranavamān āhuh kṣatradharmaparāyanān
Nābhāgāriṣṭadasamān manoh putrān mahā-balān*

Mahābhārata 1.70.13-14.

In the *Bālabhārata* Ilā is said to be the offspring of Garddama Ṛṣi.

In the 19th stanza, we are told that Yayāti fell in love with Śarmiṣṭhā and took her by the Gāndharva form of marriage secretly without the knowledge of his wife Devayānī. In the *Mahābhārata* we are told that

⁴ E. W. HOPKINS, *Epic Mythology*, p. 147.

⁵ *Ibid.* p. 90. A. A. MACDONELL, *Vedic Mythology*, p. 112.

⁶ We owe this account of the relationship of Soma-Candra and the Sun (the same as the celestial form of Agni) to Prof. V. M. APTE.

⁷ Cf. *netrābhyām vāri susrūva dasadhā dyōtayad dīśaḥ
tam garbham dasadhā hr̥ṣṭā dīśo dēvyō dadhuh tataḥ
sametya dhārayāmāsur na caitān tam āśakṣnuvan
sa tābhyas sahasaivātha digbhyo garbhah prabhānvitah
papāta pāvayan lokān śītāmsuḥ surabhāvanah*

Mallinātha's Commentary on stanza 75, Canto 2, *Raghuvamśa*.

Śukrācārya while giving Devayāni in marriage to Yayāti asked him to look after Śarmiṣṭhā, but not to marry her.

*Iyam cāpi kumārī te Śarmiṣṭhā vārṣaparvaṇi
Sampūjya satatam rājan mā cainām śayane hwayeḥ
Mahābhārata 1.76.34.*

In the Southern Manuscripts we have a slight amplification, besides substitution

*Iyam kumārī Śarmiṣṭhā duhitā vṛṣaparvaṇaḥ
tām pūjayethā mā cainām śayane vai samāhvaya
rahasy enām samāhūya na vader na ca samspr̥ṣeḥ
vahasva bhāryām bhadram te yathākāmam avāpsyasi
Critical notes on 1.76.34 Mhb. (p. 347).*

In regard to Śarmiṣṭhā giving birth to Pūru and Śukrācārya cursing Yayāti and at the same time telling him that Yayāti might exchange his old age, the Tamil Bhāratam (stanzas 21-23) agrees with the original Mahābhārata (1.70.32, 1.78.30, 1.78.40).

In stanza 30 of the Tamil work there is an allusion to Indradyumna becoming an elephant and Anuru becoming a crocodile. From Moon (Candra) to Vicitravīrya the genealogy is in agreement with that found in Bālābhārata. After Hastin, the next name mentioned is Kuru in the Bālābhārata. We might incidentally mention that this stanza 30 is suspected to be an interpolation by some scholars. But there are no decisive arguments for this view. There are two different accounts of the Kuru-Pāṇḍava line in the Mahābhārata itself. According to one, Hastin is the son of Dhṛtarāṣṭra⁸ and Kuru is an ancestor of Hastin.⁹ According to the other account Hastin is an ancestor of Kuru and was the founder of Hāstinapuram,¹⁰ Kuru being Hastin's great-grandson's

⁸ *Dhṛtarāṣṭrotha rājāsī tasya putro'ṣṭha Kuṇḍikaḥ
Hastī Vitarakaḥ Krāthas ca Kuṇḍalas cāpi pañcamah
Mbh. 1.89.51.*

⁹ *tatas samvaraṇāt Saurī suṣuve tapaṭi kurum
Mbh. 1.89.42 ab.*

¹⁰ Cf. verses 28 and 29 of the Kuru-kula Sarga of the Tamil Bhārata.
*suhotraḥ khalu Ikṣvākūm upayame suvarṇām nāma |
tasyām aya jagne Hastī | ya idam Hāstinapuram māpayā-
māsa || elad aya hāstina-puravum. ||
Mbh. 1.90.36.*

son.¹¹ In the original Mahābhārata Indrasena is mentioned in the Kuru-Pāṇḍava line of kings,¹² but there is no mention of his having been cursed. Anuru's name is not found in that line.

In stanza 59 of the Tamil work it is stated that Varuṇa who looked at the limbs of Gaṅgā in the open court of the gods was cursed by Brahṇā to be born on the earth and be Gaṅgā's husband (stanza 60). In the Mahābhārata however we find that it was Mahābhīṣa and not Varuṇa who was cursed thus :

*atha Gaṅgā saricchreṣṭhā samupāyāt Pitāmaham
tasyā vāsaḥ samudhūtam mārutena śaṅiprabhām
tato' bhavan suragaṇāḥ sahasāvāṇmukhās tadā
Mahābhīṣas tu rājarṣir aṣaṅko drṣṭavān nadīm
apadhyāto bhagavatā brahmaṇā sa māhabhīṣaḥ
ukṭās ca jāto martyeṣu punarlokānavāpsyasi*

1.91.4, 5 and 6.¹³

The Bālabhārata also follows the same trend. In stanza 85 of the Tamil work we are told that when Śantanu is hit by the arrow sent by Devavrata, the king faints and falls down¹⁴ and Gaṅgādevī makes her appearance and takes the king in her lap, with great compassion. She is compared to Lakṣmī being born with the moon, from the milky ocean like a creeper with beautiful flowers.

ōtaveṇṭiraiyin matiṇuṭanuttitta voṇumalarkkoṭiyena

Here apparently Devavrata is compared to the moon also. Bālabhārata has *nidhineva lakṣmīḥ*. Hence the commentator suggests that there might

¹¹ *Saṁvaraṇaḥ khalu vaivasvatīm tapatīm nāmopayame/tasyāmayā jajñe Kuruh||*
Mbh. 1.90.40.

¹² *Indrasenaḥ Suseṇasca Bhīmasenāca nāmataḥ*
Mbh. 1.89.48. cd.

¹³ After 6, D₄ (marg. sec. m.) S (D₄ G₂ om. line 1.) ins. :
*manuṣyeṣu ciraṁ sthitvā lokān prāpsyasi śobhanān
yayā hṛtmanaś cāsi Gaṅgayā tvam sudurmate
sā te vai mānuṣe loke vipriyāṇṇy ācarīyati
yadā te bhavitā manyas tadā śāpādvimokṣyase.*

¹⁴ *sa tu tam pitarāṁ drṣṭvā mohayāmāsa māyayā.*
Mbh. 1.94.27 ab.

have been another reading too as *nitiyuṭaṇ utitta* instead of *matiyuṭaṇutitta*.¹⁵ In the Mahābhārata however there is no such comparison.

In stanza 105 of the Tamil work there is a reference to a divine nymph becoming a fish [through the curse of a sage¹⁶] who thinking it to be food had swallowed the semen let down by Vasu. Here the sage (muni) referred to is apparently Brahmā.¹⁷ While we meet with a simple statement of the death of Śantanu in the Mahābhārata,¹⁸ we are told in stanza 113 of the Tamil work that Destiny through old age raised Śantanu to heaven while Bhīṣma installed Citrāṅgada on the throne thinking that for the earth he alone should be the ruler.— Cf.

tato vidhir viśrasayopagūḍham
narendram āropayati sma nāḥam
bhīṣmo' pi śastrāstravidam kumāram
citrāṅgadam pauravarājyapiṭham [Bālabhārataṁ.]

In stanza 114 of the Tamil work we are told that Citrāṅgada was killed by a Gandharva king one night, for stealing his name. Here the suggestion is clearly that the Gandharva king came at night solely on account of the fear he had for Bhīṣma, whom therefore he wanted to avoid meeting. In the Bālabhārata also we are told that the Gandharva king killed Citrāṅgada in Bhīṣma's absence. But there is a difference in the two narratives.

¹⁵ 'Nidhi' treasure is possibly Kaustubhamāṇi and not so much *amṛta*, nectar. We owe this suggestion to Prof. V. M. APTE.

¹⁶ *orumugimugivāl*.

¹⁷ Cf. *tatrādriketi vikhyātā Brahmaśāpād varapasarāḥ*
mīnabhāvam anuprāptā bābhūva Yamunācarī
śyenapādaparibhraṣṭam tad vīryam atha vāsavam
jagrāha tarasopetya sādrikā matsyarūpiṇī.

Mbh. 1.57.47 and 48.

¹⁸ *apṛāptavati tasmimś ca yauvanam bharatarābha*
sa rājā Śantanur dhīmān kāladharmam upeyivān
svargate Śantanau Bhīṣmaś Citrāṅgadam arindaman
sthāpayāmāsa vai rājye Satyavatyaṁ mate sthitaḥ.

Mbh. 1.95.4 and 5.

According to the Bālabhārata version, Citrāṅgada was killed in a battle although in Bhīṣma's absence.

*asannidhau sindhubhuvah svanāmnā
gandharvavaryeṇa raṇe nijaghne.*

The Mahābhārata version is : Citrāṅgada having conquered all mortal kings wanted to conquer the immortals, but he was overpowered by a Gandharva of the same name after a fierce battle lasting three years on the banks of the Hiraṇvatī. It is not stated that Bhīṣma was absent from the battle-scene as is mentioned in the Bālabhārata.

*sa tu Citrāṅgadaś 'sauryāt sarvāṁś cikṣepa pārthivān
manuṣyam na hi mene sa kṇcit sadṛśam ātmanah
tam kṣipantam surāṁś caiva manuṣyān āsurāṁś tathā
gandharvarājo balavāṁś tulyanāmā'bhyaṣāt tadā
tenāśya sumahad yuddham kuruṣetre babhūva ha
tayo balavato tatra gandharvakurumukhyayo
nadyāstīre hiraṇvatyāḥ samāś tiso' bhavad raṇah
tasmin vimarde tumule śastravṛṣṭisamākūle
māyādhiḥko' vadhīd vīram gandharvah kurasattamam*

1.95.6-9.Mbh. ¹⁹

Apparently in stanza 116 of the Tamil work we meet with an elaboration of the idea contained in ' vicitravīryastu tadā bhīṣmasya vacane sthitaḥ anvaśāsanmahārāja pitṛpaitāmaham padam ' 1.95.13 Mbh. In the Tamil work we are told that Vicitravīrya in the matter of ruling the kingdom was following all the injunctions of Bhīṣma and this state of affairs appeared like the process by which (=jīvātman) rises before the Paramātman. We do not meet with this expressive simile in the Mahābhārata.

*Cf: sa dharmāśāstrakūśalo Bhīṣmam śāntanavam nṛpaḥ
pūjayāmāsa dharmeṇa sa caīnam pratyapālayat*

1.95.14 Mbh.

¹⁹ After 7 cd, D₄ (marg.) S insert :

*tvam vai sadṛśanāmāsi yuddham dehi nṛpātma
nāma vānyat pragṛhīṣva yadi yuddham na dāsyasi
tvayāham yuddham icchāmi tvatsakāśāt tu nāmataḥ
āgato'smi vṛthābhāṣyo na gacchen nāmato mayā
ityuktva garjamānou tau hiraṇyātīramāśrītau*

In the Tamil work we are told that Bhīṣma went with his brother ²⁰ to the svayamvara of the daughters of the king of Kāśī. Neither in the Mahābhārata nor in the Bālabhārata do we read that Bhīṣma went to the svayamvara accompanied by his brother Vicitravīrya.

*tatas sa rathinām śreṣṭho rathenaikena varmabhṛt
jagāmānumate mātuh purīm vārāṇasīm prati.*

1.96.4.Mbh.

In stanza 121 of the Tamil work we are told that all the rest of the kings assembled in the svayamvara despaired, wondering what the intention of Bhīṣma was in having come to the svayamvara when his vow not to marry was well-known to the whole world. Here is an apparent contradiction, for had his brother Vicitravīrya accompanied him as stated in stanzas 118 and 120, would the other kings have any cause for wonder why Bhīṣma came, much less a suspicion in their minds that he was breaking his vow not to marry although he was pretty old ?²¹ This can however be compared with the statement made in the Southern version of the Mahābhārata that the other princes mocked at Bhīṣma for seeming to have broken his life-long celibacy.

*vṛddhaḥ paramadharmātmā valīpalitadhāraṇaḥ
kīmḱāraṇam ihāyāto nirlajjo bharatarṣabhaḥ
mithyāpratijño lokaṣu kim vadiṣyati bhārata
brahmacārīti Bhīṣmo hi vṛthaiva prathito bhuvi
ity evam prabravantas te hasanti sma nṛpādhamāḥ²²*

In stanza 123 of the Tamil work we read that the daughters of the King of Kāśī at the svayamvara withdrew from Bhīṣma as they sighted him in the assembly, with the thought in their minds as to how they could marry

²⁰ *tannilavēntoṭum* stanza 118, line 3, Kurukulasarga.

vēncārācanavīraṇuṁ taṁpiyūm stanza 120, line 3.

yāṇaiyennaviḷavalōṭēkinān stanza 124, line 4.

Śantanuppeyarttār muṭimannavaṇ

maintar taṅkaḷvalaṇṇakarmanninār stanza 126, lines 3 and 4.

²¹ *viruttan vantan*.....stanza 121, line 3.

²² Mbh. 996*4.8. The first three lines as well as the last one are omitted here as they are not relevant to the point. " This passage though found in all Bomb.ed. is not found in Dn. Mss. even : "

such an old man as Bhīṣma. This is in consonance with what we meet with both in Bālabhārata and the southern version of the Mahābhārata :—

ātmānam ālokyā jarāsametaṁ anyatra yāntīh (Bālabhārata)
ekākinam tadā Bhīṣmam vṛddham śāntanunandanam
sodvegā iva taṁ dṛṣtvā kanyāḥ paramaśobhanāḥ
apākṛāṁanta tāḥ sarvā vṛddha ityeva cintayā

No. 998*. Notes lines 1 to 3 (p. 436).

Ambā wanted to marry Bhīṣma after she was refused by Sālva who said that he would not accept her on the score that she was captured by his enemy, Bhīṣma. She was naturally refused by Bhīṣma as well, whereupon she went to her own father (stanzas 129 and 130 of the Tamil work). In the Bālabhārata we are simply told that Ambā went to the forest, her mind fixed on penance after she was refused by Bhīṣma. The story of her becoming Śikhaṇḍin is not found there. The story of Ambā is found related in the southern version of the Mahābhārata in the Ādiparvan itself. But it is mentioned only in the Udyoga parvan in the Critical edition. We have no reference in the former to Ambā having become śikhaṇḍin through penance. According to this version god Anantasena Kumara, gave a garland to Ambā, saying that the person wearing it would kill Bhīṣma. The garland was offered to various kings who all refused to accept it for fear of Bhīṣma. Eventually it was offered to king Somaka, the Pāncāla king. But as he too refused to accept, the garland was left in his palace by Ambā. While it was lying in the palace Śikhaṇḍin the king's daughter took it and wore it.²³ In the narrative of the Udyoga-parvan (Critical edition) we are however told by implication (not explicitly though) that Ambā transformed herself into Śikhaṇḍin through penance.

tām uvāca Mahādevaḥ kanyām kila vṛṣadhvajah
na me vāg anṛtam bhadre prāha satyam bhaviṣyasi
vadhiṣyasi raṇe Bhīṣmam puruṣatvam ca lapsyase
smariṣyasi ca tat sarvam deham anyam gatā satī
Drupadasya kule jātā bhaviṣyasi mahārathahā
śighrāstras citrayodhū ca bhaviṣyas susammataḥ

Mbh. 5-188.11-13.²⁴

²³ Appendix I, No. 55.

²⁴ Cf. *katham Śikhaṇḍī Gāṅgeya kanyā bhūtvā satī tadā*
puruṣo' bhavad yudhi śreṣṭha taṁ me brūhi pītāmaha.
 Mhb. 5.189.1.

and *yathoktam eva kalyāṇi sarvam etat bhaviṣyati*
bhaviṣyasi purnān pascāt kṣmāc citkālaparyayāt.
 Mhb. 5.188.14.

Learning everything, Ambā's father sent messengers to Bhīṣma beseeching him to marry her (stanzas 131 and 132 of the Tamil work). But Bhīṣma refused and thereupon Ambā's father advised her to seek the aid of Paraśurāma in this matter. Ambā followed this advice accordingly; both Paraśurāma and Ambā approached Bhīṣma again, Paraśurāma persuading him to marry her. Bhīṣma preferred a fight with his own guru rather than breaking up his vow. Eventually Paraśurāma was conquered in the open fight and Ambā went to a penance-grove and made penance in order to become a mighty warrior so as to possess strength to conquer the great Bhīṣma. As a result of this mighty penance she became Śikhaṇḍin (stanzas 133 to 146 of the Tamil work). In the Bālabhārata all this story such as Bhīṣma fighting with Paraśurāma is not found. In the Mahābhārata, the whole story of the fight of Bhīṣma with Paraśurāma is narrated only in the Udyogaparvan in 12 adhyāyas 5.176-188. But here there is a slight divergence. It is not the father of Ambā who advises her to seek Paraśurāma's aid, but it is her grandfather who tenders her this advice²⁵.

2. Sambhava Sarga

After Vicitravīrya's death, Bhīṣma was persuaded by Satyavatī to practise what is called niyoga²⁶ with Vicitravīrya's wives. He replies with a lacerated heart that if he were to decide to be born again in the womb of the famous Gaṅgā only then might his vow of celibacy be broken (stanza 4 of Sambhavasarga). In the Bālabhārata we are told that Bhīṣma

25 *Ambāyās tām katham śrutvā kṣāśirājñas' ca bhārata
sa vepamāna utthāya mātur asyaḥ pitā tadā*

abravīd vepamānas' ca kanyām ūrlām suduḥkṛtāḥ

*gaccha madvacanād Rāmam jāmadagnyam tapasvinam
Rāmas tava mahadduḥkham śokam cāpanayīṣyati.*

Mbh. 5.174.17-22.

26 The actual word used in the Tamil work is *devaramīti* which is obviously the *devaranyāya* referred to in the Mahābhārata.

Kuṇṭi sampreṣayāmāsa devaranyāyadharmataḥ.

Mbh. 1.1274*.1.

replied in this context that Gaṅgā's son would give up his vow only if fire were to give up heat. This is in consonance with the reply of Bhīṣma in the Mahābhārata. Compared to this forcible reply of Bhīṣma, the one given in the Tamil work is a mild one and it is clear that the author deviates from the Mahābhārata and from the Bālabhārata as well.

*tyajec ca pṛthivī gandham āpaś ca rasam ātmanah
jyotis tathā tyajed rūpam vāyuh sparśaguṇam tyajet
prabhām samutsrjeā arko dhūmaketus tathoṣṇatām
tyajec chabdam tathākāśaḥ somaḥ śītamśutām tyajet
vikramam vṛtrahā jahyād dharmam jahyāc ca Dharmarāṭ
natv aham satyam utsraṣṭum vyavaseyam kathañcana.*

Mbh. 1.97. 16-18.

Satyavatī invokes Vyāsa : he appears, cleansing the feet of Satyavatī of the dust with sacred ashes on his forehead (stanza 10 of the Tamil work). This can be compared with the following lines in the Bālabhārata :

*praṇāmalagnena lalāṭabhasmanā
bhṛśam pavitrīkṛtapādapañkajā.*

But in the Mahābhārata we meet with a more simple statement.

*sa vedān vibruvan dhīmān mātur vijñāya cintitam
prādurbabhūvāvidītaḥ kṣaṇena kṛunandana*

Mbh. 1.99.22

In the commentary on the 12th verse commenting on the lines

*puṇmaṇa nīzaintoli kuzaintolkap
puṇaiyum jeyyoṭum.....*

“(Vyāsa) with the (bad) smell of grass and a body without lustre and emaciated.....”, the commentator draws attention to the epithet *ahr̥dyagandham* in the Bālabhārata. It must be noted here that the readings of the southern manuscripts of the Mahābhārata are more in agreement with the Tamil work, and therefore here is a clear instance where the author of the Tamil work has followed more the original Mahābhārata

(of course the southern versions) than the Bālabhārata. D₄ (marg.)
C₆ M_{3.5} continue. T G_{1.5}, M_{6.5}) (om. lines 3-4) insert after 5 :

*tam samikṣya tu Kausalyā duṣprekṣyam atathocitā
virūpam iti vitrastā samṅkucyāsīn nimilitā
virūpo hi jaṭi cāpi durvarṇaḥ paruṣaḥ kṛsaḥ
sugandhetaragandhaś ca sarvathā duṣpradarṣanaḥ*

Critical notes on Mbh 1.100.4.

In stanza 14 the author of the Tamil work clearly follows the Bālabhārata²⁷ when he makes Satyavatī say to Vyāsa “ let Ambālikā get a child who will be like the sun, husband of lotus with long stem and like the moon too, ruling over the beautiful earth under his canopy.”

In regard to the statement that Ambālikā became pale with fear and shyness and filled with sorrow, which we meet with in the 15th stanza of the Tamil work, apparently there is no disagreement between the Bālabhārata and the Mahābhārata.

*vilokya sā cainam uvāha lajjitā
vipāṇduratvam pura eva dauhṛdāt (Bālabhārata)
Ambālikām athābhyaḡāt ṛṣim dṛṣtvā ca sāpi tam
viṣaṇṇā pāṇḍusaṅkāśā samapadyata bhārata.*

Mbh. 1.100.15.

Again Satyavatī invoked Vyāsa and seeing him with fear Ambikā made her friend and maid who was charmingly adorned with ornaments enjoy him²⁸. This is also in agreement both with the Bālabhārata and the Mahābhārata

*vidagdhanaiṣṭhyavatī tadantikām yayau (Bālabhārata).
tatas svair bhūṣaṇair dāsīm bhūṣayitvāpsaropamām
preṣayāmāsa Kṛṣṇāya tataḥ kāsīpateḥ sutā.*

Mbh. 1.100.23

27

*kumāram utpādaya tatra tādṛśam
viṣeṣyate bhūvalayam bhujena yaḥ (Bālabhārata)*

Contrast these lines with the following in the Mbh.

*jñātivamsāsya gopīrām pitṛṇām vamsāvardhanam
dvitīyam kuruvasāsya rājānam dātum arhasi*

Mbh. 1.100.12.

28

pūṇalamparuṭolīmarrottiyaippūvaṇaiyaṇaivittāl

stanza 18, Sambhavasarga, line 4.

In a similar manner the Tamil work ²⁹ follows both the *Bālabhārata*³⁰ and the *Mahābhārata*,³¹ in stating that the servant-woman captured the sage's heart and he being thus charmed enjoyed her.

But in stanza 20 we meet once again with another significant departure both from the *Bālabhārata* and from the *Mahābhārata*. According to the Tamil work, Vyāsa comes to Satyavatī and tells her that the servant-maid on account of her previous penance and on account of the boons she had obtained from the gods, was blessed to be the mother of Dharma, who will be called Vidura, proficient in fierce battle. In the *Bālabhārata* we are merely told that Yama who was a victim of a curse from the sage *Ānimāṇḍavya*³² would be born as Vidura to the servant-maid. (This was what Vyāsa told Satyavatī). In the *Mahābhārata*, Vyāsa merely informs Satyavatī of the conception by the servant-maid and disappears.³³ It is Vaiśampāyana who in his narration to Janamejaya, alludes to the curse by *Ānimāṇḍavya* in detail

sa jajñe Viduro nāma
dharma Vidurarūpena śāpāt tasya mahātmanah
Māṇḍavyasya

Mbh. 1.100.27-28

and

śūdrayonāv ato Dharma mānuṣaḥ sambhaviṣyasi

Mbh. 1.101.25 c d.

²⁹ Stanza 19, *Sambhavasarga*.

³⁰ "As the deer is charmed by music so was the great sage who had conquered the five senses charmed by the servant-maid." *Bālabhārata*.

³¹ *kāmopabhogaena tu saḥ tasyām tuṣṭim agād ṛṣiḥ*
tayā sahoṣīto rātrim maharṣiḥ prīyamāṇayā

Mbh. 1.100.25.

³² D₄n₃, S (except G₆ M₅) and D₄ have *Ānimāṇḍavya*, while other manuscripts have different names for the sage as given hereunder:—*Ānimāṇḍavya*, *Ānimāṇḍavya*, *Ānimāṇḍavya* and *Śrīmāṇḍavya*. (See notes on 1.101.24-25).

³³ *sa dharmasyānṛṇo bhūtvā punarmātrā sametya ca*
tasyai garbham samāvedya tattraivāntaradhīyata.

Mbh. 1.100.29.

According to the Tamil work ³⁴ *Dhṛtarāṣṭra* was coronated as the king and Pāṇḍu as *Senāpati*. By *argumentum ex silentio* we might say here that *Dhṛtarāṣṭra* was ruling as the king according to Villiputtūrār. What we are told in the southern versions of the *Mahābhārata* is that though *Dhṛtarāṣṭra* was crowned as king, Pāṇḍu was the actual ruler.

Bhīṣmeṇa rājā ṭauravyo Dhṛtarāṣṭronhiṣecitaḥ

.....

Dhṛtarāṣṭras tv acaṣṣuṣṭvād rājyam na pratyapadyata
avaratvāc ca Vidurāḥ Pāṇḍus cāsīn mahīpatiḥ

Lines 2-8, No. 1106,* Critical notes on 1.102.15

Prthā served the sage Duvāsas for twelve months with a single-minded devotion giving up all her youthful pleasures.³⁵ Whatever the sages asked her to do, no matter how difficult the tasks were, she carried out till his commands.

..... *Yātiyāturai ceytāṇ* (stanza 28, line 2)

..... *enātēva*

laritenātu nīyiyarṇai.....

stanza 29 lines 1 and 2.

Cf. *sah yadyad ājñāpayati sma duṣṭkaram* (Bālabhāratam)
and *dadhyājyākādibhir nityam vyañjanaiḥ pratyaham śubhā*
saahasrasaṅkhyair yogīndram samupācarad uttamā

Mbh. 1.114*, 1-2.

Prthā invoked Sūrya, but when he came she asked him not to touch her. Sūrya got angry and vehemently asked her why in that case she had invoked him and what might not they suffer who had taught her the mantra of invocation.³⁶

Cf. *ṭaromi yāvat tava mantradāyinam*
madiyaśāporagaveṣitam munim (Bālabhāratam).
and *yady evam manyase bhīru ṭim āhwayasi Bhāṣṭkaram*
yadi mām avajānāsi ṛṣiḥ sa na bhaviṣyati
mantradānena yasya tvam avalepena darpitā

³⁴ Stanza 22, Sambhavasarga.

³⁵ Stanzas 27, 28, 29 and 30, Sambhavasarga.

³⁶ Stanzas, 31-34, Sambhavasarga.

Lines 12-14, Appendix I, No. 59, Critical Edition of Mhb.

Sūrya further says that she need not fear the wrath of her parents³⁷ implying thereby that she would become a virgin again after yielding to him.

Cf. *ṣanyakābhāvam imam ca (na) hāsyasi* (Bālabhāratam).
and *vyapayātu bhayam te'dya ṣumāram prasamiṣyase*
mayā tvam cāpyanujñātā punaḥ ṣanyā bhaviṣyasi

Lines 18 and 19, Appendix I, No. 59, Mhb.

Kuntī then yielded to Sūrya and becoming beautiful like deluge-flames brought forth a boy³⁸ who was matchless and who could give such gifts that even gods like Indra might beg of him, just as the ocean brought forth Cintāmaṇi

Cf. *anupraveśād ayam ātmatejasah*
śikhām ivāgner adhiḥojjvalākr̥tim
.....
athepsitārthapratipādanārhatām
upeyivāmsam surabhartur arthinah
asūta cintāmaṇim ūḍhatejasam
samudraveleva nr̥pātmaṣā sutam (Bālabhāratā³⁹)

Now Prthā again attaining to her former virginhood seeing her child who was worthy of her love with *ṣavaca-ṣuṇḍala* embedded with gems, fearing the scandal from persons born of high clan, put him in a box, and closing it, sent it to a full river (stanza 39). In the Bālabharata we are told that she had let it in the floods of the Ganges. In the Tamil

³⁷ Stanza 35, line 1, Sambhavasarga.

³⁸ Stanzas 36 to 38, Sambhavasarga.

³⁹ Strictly speaking there are no corresponding verses in the Mīhabhāratā.

aṣṭjanat tato vīram sarvasāstrabhṛtām varam
āmr̥ktakavacah śrīmān devagarbhah śrīyā vṛtah
sahajam ṣavacam bibhṛat ṣuṇḍalodyotitānanah
aṣṭayata sutah Kāṇah sarvalokeṣu vīsrutah.

work the name of the river is not mentioned. This is in perfect agreement with the statement made in the Ādiparvan of Mahābhārata

Cf *surasravantyām apavādaśaṅkitā*
sakṛhībhir āptābhir asāv amocayat (Bālabhārata)
 and *gūhamānāpacāram tam bandhupaṅśabhayāt tadā*
utsasarja jale Kuntī tam kumāram salakṣaṇam

Mbh. 1.104.13.⁴⁰

In the regular *svayamvara* Kuntī chooses Pāṇḍu (stanzas 44 and 45, Sambhavasarga); the king of Madra too of his own accord gave his daughter to Pāṇḍu and he married her. In the Bālabhārata we are told that Bhīṣma through his prowess in archery, captured Mādri and married her to Pāṇḍu. In the Mahābhārata it is said that Bhīṣma went and requested Mādri's father to give her in marriage to Pāṇḍu and the king of Madra consented.

Cf *yātvā Devavratenāpi madrāṇām puṭabhedanam*
viśrutā triṣu lokeṣu Mādri madrapates sutā

Pāṇḍorathe pariṅritā dhanena mahatā tadā
vivāham kṛayāmāsa Bhīṣmaḥ pāṇḍor mahātmanah

Mbh. 1.105.4, 5.

When Pāṇḍu was cursed by Kiṇḍama, he straightway went to the forest to make penance⁴¹. According to the Mahābhārata however

⁴⁰ However, in the Āraṇyakaparvan, in the sub-parvan Kuṇḍalīharaṇaparvan, we are told that the box in which Karna was placed was first placed in the Aśvanadī which took it to the Carmanvatī from which it travelled to the Yamunā and lastly it reached the Ganges.

evam bahuvīdham rājau vilāpya karuṇam Pṛthā
avāśrjata mañjūṣām aśvanadyās tadā jale

mañjūṣa tv aśvanadyās sa yayau Carmanvatīm nadīm
Carmanvatyāsca Yamunām tato Gaṅgām jagāma ha.

Mbh. 3.292. 22-25.

⁴¹ Stanza 52, Sambhavasarga.

he wanted to leave his wives and make penance, but being persuaded by them he took them also

Cf. *tasmād ekaṁ ekāṁ ekaikasmin vanaspatau*
caran bhaiṣam munir muṇḍaś carīṣyāmi mahīmimām
 Mbh. 1.110.7.

and 8 —*artham kāmam sukham caiva ratim ca paramātmikām
pratasthe sarvam utsrjya sabhāryaḥ kurupungavaḥ*
Mbh. 1.110.38.

Vyāsa collected the fragments of the foetus that fell out of the womb of Gāndhārī and grouped them into a hundred and the remaining he put into a jar wishing that it should become a beautiful girl (stanza 72, Sambhavasarga). Possibly here the author of the Tamil work attempts to follow the southern version of the Māhābhārata faithfully. But his work being only an epitome, he omits such details as Gāndhārī telling Vyāsa with regret that she had no daughter.

yadi nāma mamāpi syād duhitaiḥ 'śatādhiḥ
ḥṛtakṛtyā bhaveyam vai putradauhitrasamvṛtā
 Appendix I. No. 63, lines 24, 25. Mbh.

In the Tamil work⁴² we are not told that Pāṇḍu was at first prevented by Mādri from approaching her, as he remembered the curse. On the contrary she too easily succumbed to his overtures.⁴³ In the Bālābhārata as in the Māhābhārata we are told that Mādri did not so easily yield to him at the first instance, but on the other hand dissuaded him and that Pāṇḍu forcibly enjoyed her with the disastrous consequence that followed. Here is therefore another clear instance where the Tamil work departs both from the Bālābhārata as well as from the Māhābhārata.

*tata enām balād rājā nijagrāha rahogatām
vāryamāṇas tayā devyā visphurantiyā yathā balam
sa tu kāmaparitātmā tam śāpam nānvabudhyata
Mādrim maithunadharmaṇa gacchamāno balād iva
Mbh. 1.116.8-9.*

⁴² Stanzas 95-102, Sambhavasarga.

⁴³ Stanza 98, Sambhavasarga.

.....

.....

kātyāṇkannikēḥvaṇkamalavaratmārpiṇṇapō
tōvīyameṇavēyullamurukinalayarntu viṇṇāḥ

In the Mahābhārata we are told that Mādrī dissuaded Kuntī from entering the funeral pyre and showed the logic of her position that she alone should enter the fire for it was through enjoying her Pāṇḍu died.

*mām cābhigamya kṣīṇo'yam kāmād bharatasattamaḥ
tam ucchindyāmasya kāmam kathan nu yamasādane*

Mbh. 1.116.26.

The Balabharāta version is that because on account of her own fault Pāṇḍu died Mādrī requested Kuntī to allow her to enter the funeral pyre. But in the Tamil work we meet merely with the simple statement that Mādrī enters the funeral pyre only unable to bear separation from her husband.

mulukiualanarpunalimoympanaiviṭātāl

Stanza 105, line 4, Sambhavasarga.

After Mādrī's death, Kuntī performed all the funeral rites of her dead husband through her sons and she went to Hastināpurī through the desire of sages like Kāśyapa who were dwelling on the Śataśṛṅga mountains (stanzas 106 and 107, Sambhavasarga). In the Mahābhārata however we are told that the *avabhṛtha* was performed for Pāṇḍu and the sages took Kuntī and her sons to Nāgasa in order to hand over Pāṇḍu's children to Bhīṣma and Vidura.

*Pāṇḍor avabhṛtham kṛtvā devakalpā maharṣayah
Paṇḍoḥ putrān puraskṛtya nagaram nāgasōhwayam
..... gamane cakṛire manah*

Mbh. 1.117.1-5ab.

After 4ab T G inserts :

*Dharmam caiva puraskṛtya s'reṣṭhām matim akurvata
kuruḥsetram itaḥ Kuntīm tām saputrām nayāmahe*

Critical notes on Mbh. 1.117.4.

According to the version in the Mahābhārata possibly only dahanasamskāra was performed in the Śataśṛṅga mountain for it is clearly

stated that Mādrī entered the funeral pyre. The other *uttara kriyā* was performed by Dhṛtarāṣṭra and others in Vāraṇa.

*ityuktvā tam citāgnistham Dharmapatnī naraṣabham
madrarājātmajā tūrṇam anvārohad yaśasvinī*

1.116.31 Mbh.

kāmabhogān parityajya śataś ṛṅgam ito gataḥ
.....

pitṛlokaṁ gataḥ Pāṇḍur itaḥ saptadaśehani

1.117.20 cd—27. Mbh.

*tataḥ kṣattā ca rājā ca Bhīṣmaśca sahabandhubhiḥ
daduḥ śrāddham tadā Pāṇḍoḥ svadhāmṛtamayam tadā*
.....

ādāya viviś uḥ paurāḥ puram vāraṇasāhvayam

1.119.1-3 Mbh.

3. Vāraṇāvata Sarga.

During the course of a play with Duryodhana Bhīma recognises a treachery of his cousin. He sees bees on the waters of the Ganges and recognises the spearheads placed in the river on whose tops alone the bees were seated. So Bhīma jumps where the spears were not installed and escapes.⁴⁴ This story is not found either in the Bālabhārata or in the Mahābhārata. But the other story of Bhīma being bound by a rope of weeds when he was out of his senses on account of poison, and thrown into the Ganges⁴⁵ is found in all the three works. But in the Tamil work we are told that he went to the nether world where he was bitten by serpents and their poison nullified the effects of the poison administered to him previously.⁴⁶ In the Bālabhārata what we are told is that Bhīma reached the nether world unaffected by the spears through the kindness of fate. Similar is the version in the Mahābhārata.⁴⁷ The Tamil work departs from the two in that in this context no reference is made to the spears.

⁴⁴ Stanza 10, Vāraṇāvatasarga.

⁴⁵ Stanza 12, Vāraṇāvatasarga.

⁴⁶ Stanzas 13, 14, Vāraṇāvatasarga.

⁴⁷ Appendix I, No. 73, Critical edition of Mbh.

Vāsuki gives Bhīma nectar from out of ten golden vessels.⁴⁸ In the Mahābhārata we are told similarly that Vāsuki gave Bhīma juice which could give him the strength of thousand elephants.⁴⁹ But in the Mahābhārata it is stated the Vāsuki did so because of the words of the maternal grandfather of Vāsuki and Prthā. In the Tamil work this is not mentioned.⁵⁰ We are merely told that Vāsuki recognised Bhīma as Vāyu's son.

*Cf. āryakeṇa ca dr̥ṣṭas san Prthāyās cāryakeṇa tu
rasam pibet kumāro'yam tvayi prīte mahābalaḥ
Lines 69-76, Appendix I, No. 73, Mbh.*

When Bhīma was thus missed all the other four brothers searched for him in forests, in rivers and ponds. It is remarkable that this order of places is the same in the Mahābhārata, the Bālābhārata as well as the Tamil work.

udyānāni vicitrāṇi nadīni ca sarāṃsi ca

Appendix I, No. 73, Critical notes on line 100, Mbh.

kānaneṣu saraṣīṣu sindhuṣu (Bālābhārata).

.....

.....*kāṇatiyōṭaiyenkaṇun*

tēṭṭiṇar

stanza 20, Vāraṇāvatasarga.

Discussing the birth of Droṇa, the Tamil work⁵¹ gives Menakā as the name of the woman whom Bharadvāja loved, while according to the Mahābhārata⁵² it is Ghṛtācī. Again according to the Tamil work⁵³ Bhīṣma sent a message to Droṇa and accordingly he came to Hastināpurī. But the Bālābhārata as well as the Mahābhārata say that only Bhīṣma desired to invite Droṇa while the latter himself reached Hastināpurī. Droṇa came with his wife and child. It is to be remarked here that we

⁴⁸ Stanza 15, Vāraṇāvatasarga.

⁴⁹ Lines 80-83, Appendix I, No. 73, Mbh.

⁵⁰ Stanza 15, Vāraṇāvatasarga.

⁵¹ Stanza 32, Vāraṇāvatasarga.

⁵² 1.121.3. Critical edition of Mbh.

⁵³ Stanza 34, Vāraṇāvatasarga.

meet with the expression 'kaiyinmatalai'⁵⁴ in the Tamil work in this context. This expression has to be ordinarily rendered into 'a child-in-arms', that is, a child who is only a few months old, usually a suckling child. While narrating Drupada's story to Bhīṣma Droṇa mentions that up to his fifth year, his child could not enjoy the ordinary pleasures of childhood owing to his extreme poverty.⁵⁵ Again when Bhīṣma and Duryodhana entered into gadāyuddha, by their demeanour knowing the workings of their inner minds Aśvatthāma (their guru's son) using his might prevented them.⁵⁶ The epithet used for Aśvatthāman here is significant—*meykālviṭṭaraiṇṇaṭṭaperiyōṇ* the great one who was well versed in true learning. This shows that when Droṇa came to Hastināpurī Aśvatthāman was considerably old and therefore the expression *kaiyinmatalai* could at best be rendered into only a 'boy'. Perhaps this expression was used to denote only affection as we are wont to see parents endearingly calling even their very much grown-up sons 'children'. In the Mahābhārata of course we are told by implication that Aśvatthāma was fairly grown up.

Aśvatthāmānam āhūya Droṇo vacanam abravīt

.....

ityuktvā tu tadā pāṛthah pādau jagrāha pāṇḍavah

Mbh. 1.1381*, 1-6.

Bhīṣma tells Droṇa that he will be at the head of their entire kingdom, being one of them.⁵⁷ This is in consonance with the Mahābhārata version.

kurūṇām asti yad vīttam rājyaṇ cedam sarāṣṭrakam

tvam eva paramo rājā sarve ca kṛavas tava

1.1377, 6-7.

In the Tamil work, we are told merely that a ring fell down in a deep well and Droṇa commanded all his disciples to take it out. Every one of them failed except Arjuna who by constructing a chain of arrows pulled out the ring. Then Droṇa commanded his disciples to shoot up arrows

⁵⁴ Stanza, Vāraṇāvatāsarga.

⁵⁵ Stanza 42, Vāraṇāvatāsarga.

⁵⁶ Stanza 59, Vāraṇāvatāsarga.

⁵⁷ Stanza 47, Vāraṇāvatāsarga.

in such a manner as to pierce all the leaves of a banyan tree. Here too all failed except Arjuna.⁵⁸ In the Bālabhārata, all these anecdotes are not found. But in the Mahābhārata what we are told is that Droṇa fell out with his former friend, Drupada and lived in disguise in Hastināpuri. Pāṇḍavas and the Kauravas who were playing let drop a ring and a ball. They could not extricate these. Droṇa who was near by, on account of his marvellous skill in archery pulled these toy things out of the well. Both the Pāṇḍavas and the Kauravas were struck with wonder at this and fell at his feet and they informed all that had happened to Bhīṣma who thereupon entrusted them to Droṇa's care and thus he became their teacher. After the training was over Droṇa placed a bird called *bhāsa* on a tree and asked his disciples successively to aim at this. They were asked one by one as to what they saw before them. Every one of them invariably told their guru that they saw the tree as well as their own teacher in addition to the bird. They were disgraced and Arjuna alone who told Droṇa that he saw only the head of the bird was commanded to shoot which he did with success. It is clear that here the Tamil work entirely departs from both the Bālabhārata and the Mahābhārata for here both the incidents are put together and narrated as having happened long after Droṇa became the teacher of the Pāṇḍavas and the Kauravas.⁵⁹

According to the Tamil work Upayāja and Yāja both officiate and perform a rite in consonance with Vedic injunctions for the progeny of Drupada.⁶⁰ Upayāja performing the sacrifice gave the *havis* (oblation) to Drupada's wife; after she became such as not to touch (*tīntāl ākiya piṇ* stanza 86, line 3, Vāranāvatasarga), Upayāja threw the oblation in the fire and in a moment made the son appear. The straight-forward interpretation of the line *tīntāl ākiya piṇ* would be only 'after she became an untouchable'. (Possibly according to the author of this work she was in her menstrual period and therefore only she could not take the oblation). It seems to us straining too much to interpret the line, 'as her not touching the oblation on account of her pride'. Such an interpretation does not seem warranted. The commentator says that such an interpretation is given in consonance with what is found in the

⁵⁸ Stanza 51, Vāranāvatasarga.

⁵⁹ 1.122.10-40. Additional lines, No. 1365 and 1.123.45-66.

⁶⁰ Stanza 85, Vāranāvatasarga. Incidentally it might be remarked that according to the Mbh. Yāja was at the head and Upayāja was the purohita.

Bālabhārata and in the Mahābhārata as well. But here is a Gordian knot. In the critical edition of the Ādiparvan there is no reference, in this particular context, to this story of Yāja and Upayāja performing a sacrifice for the sake of a son and a daughter to be born to Drupada with a view to kill Droṇa and to marry Arjuna respectively. Thus the Gordian knot is cut by the critical edition of the Parvan in the context which omits the whole episode connected with the sacrificial performance of Yāja and Upayāja on behalf of Drupada.⁶¹

⁶¹ This story of Yāja and Upayāja performing a sacrifice for the benefit of Drupada is however met with in another context in the critical edition (I.155), which agrees substantially with the narration of the episode in Appendix I, No. 79. When Yāja calls upon the queen to come forth and greet the mithuna (a pair) the birth of which is imminent then Pṛṣati's reply is as follows :—

My face is unsmeared and I exude holy odours (Appendix I, No. 79, line 100).

The next line which completes Pṛṣati's reply can be construed only in the following way if it is to yield any satisfactory sense :

(1) I am not your wife ; for the sake of progeny, however, do what is in my interest.

Here we do not know what to make of the words *mama priye* which by no means can be construed so as to go well with the doubtful character of the response. It is the word *pratyākhyāte* in line 117 in the same section that gives some support to the view that Pṛṣati's response is not exactly a favourable one. On the other hand since her response, if at all unfavourable, does not upset the ritual and since there is a stereotyped repetition as it were of her response in the description of the second part of the ritual which is a replica of the first part, it is also possible to suppose that the *pratyākhyāna* or rejection was a sort of mock—ceremonial, which is not unusual in the Vedic ritual or this word may be understood in the primary sense of 'response' and not 'rejection'.

On the whole this section in the Appendix and particularly the verse translated in part above as well as the corresponding section and verse in the critical edition leave much to be desired so far as syntax goes.

We owe to Prof. APTE the interpretation of this hopelessly difficult passage in Appendix I, No. 79.

It is therefore clear that the attempt of the Commentator of the Tamil work to interpret the line 'tiṇṭālaKiya piṇ' as he does believing it to be in consonance with the supposed version of the Mahābhārata does not bear any stamp of justification whatsoever.

I.155.35 *a* and *c* read slightly different from the first halves of both the lines 100 and 101, Appendix I, No. 79. But these do not affect our remarks regarding the Tamil commentary in any way.

Dhṛtarāṣṭra failed in his attempt to make Duryodhana feel the justice of Yudhiṣṭhira being installed as prince.⁶² On the contrary Dhṛtarāṣṭra's mind itself undergoes a change and he tells Bhīṣma and Vidura of the enmity in the heart of Duryodhana against the Pāṇḍavas. He suggests that the Kauravas and the Pāṇḍavas must be separated.⁶³ Both Bhīṣma and Vidura reply that as ever from childhood, the Kauravas were hating the Pāṇḍavas, the former who would not listen to any advice should have to be left to themselves.⁶⁴ Dhṛtarāṣṭra thereupon called the minister Purocana who could not maintain the balance of justice.⁶⁵ Duryodhana and Purocana as well as Dhṛtarāṣṭra⁶⁶ enter into a treacherous consultation and decide to invite the Pāṇḍavas to live in Vāraṇāvata and accordingly the place Vāraṇāvata was renovated.⁶⁷ Dhṛtarāṣṭra asked the Pāṇḍavas then to go Vāraṇāvata making Purocana their minister. All of them with Kuntī went to Vāraṇāvata and worshipped Śiva, the presiding deity of the place. The Pāṇḍavas were ruling there, but a suspicion arose in their minds about Purocana when they saw the lac-palace. One of those who were employed in building up this lac-palace came to Bhīma and apprised him of the entire treachery as well as a way of escape. Bhīma rewarded him and was on the alert.⁶⁸ The treacherous consultation with Purocana as well as an architect informing Bhīma of the whole treachery of the lac-palace are not met with in the Bālabhārata. Here the Tamil work is more in agreement with the Mahābhārata.⁶⁹

4. *Vetrakīya Sarga.*

After Ghaṭotkaca was born both Hiḍimbā and the boy take leave of the Pāṇḍus.⁷⁰ This is in agreement with the Mahābhārata version where

⁶² Stanzas 100-101, Vāraṇāvatasarga.

⁶³ Stanzas 103-105, Vāraṇāvatasarga.

⁶⁴ Stanza 106, Vāraṇāvatasarga.

⁶⁵ Stanza 107, Vāraṇāvatasarga.

⁶⁶ In the Mahābhārata Dhṛtarāṣṭra is not in the picture. See 1,132,1-2

⁶⁷ Stanzas 108-111, Vāraṇāvatasarga.

⁶⁸ Stanzas 112-125, Vāraṇāvatasarga.

⁶⁹ 1,132-135. Critical edition of Mhb.

⁷⁰ Stanza 32, Vetrakīyasarga.

we are told that at the time of Bhīma's marriage with Hidimbā it was agreed that she should leave him after the birth of a son, which agreement she kept up.

yāvatkālena bhavati putrasyotpādanam śubhe

tāvatkālam gamiṣyāmi tvayā saha sumadhyame.

1·1561*, 2-3.

and *saṁvāsasamayo jīrṇa ity abhāṣata tam tataḥ*

Hidimbā saṁvāsam kṛtvā svām gatim pratyapadyata.

Mbh. 1·143·36.

Pāṇḍavas then in the disguise of Brahmins well versed in Vedic lore-reached Vetrakīya. In the Tamil work⁷¹ it is called a town (nagar) as it is in the Bālabhārata. But according to the Mahābhārata they reached the city called Ekacakra and only the place which they occupied in it was called Vetrakīya. The eminent Brahmins of that place vied with each other in welcoming the Pāṇḍavas.⁷²

vetrakīyagrhe rājā nāyam nayam ihāsthitaḥ

anāmayam janasyāsyā yena syād adya śāśvatam

Mbh. 1·148·9.⁷³

We meet with a departure in regard to a minor point in the Tamil work from both the Mahābhārata and the Bālabhārata version. According to the Tamil work, the asura Baka lived in a forest close to Vetrakīya,⁷⁴ while both according to the Bālabhārata and the Mahābhārata Baka lived on the banks of the Jumna.

ito gavyūtīmātre'sti Yamunāgahvare guhā

tasyām ghorah sa vasati jighāmsuḥ puruṣādakah

Bako nāma sa nāmnā vai duṣṭātmā rākṣasādhamah

Mbh. 1·1626*, 1-3.

⁷¹ Stanza 33, Vetrakīyasarga.

⁷² Stanza 34, Vetrakīyasarga.

⁷³ We have the following variants for *grhe* Ś, K (except K₄) *graho*; Ō₃ *grho*; G 1.4.5 *pure*; G3 has *viprakīyagrha* for *vetrakīyagrhe*.

⁷⁴ Stanza 39, Vetrakīyasarga.

5. *Draupadimālāyitta Sarga.*

The stanzas ⁷⁵ which describe nature which was indicative of the coming joy to the Pāṇḍavas, on their way to Draupadī's svayamvara have no parallel in the Bālabhārata as well as the Mahābhārata. In the svayamvara, after his speech, Dhṛṣṭadyumna himself showed all the princes that were assembled there to Draupadī according to both the Mahābhārata and the Bālabhārata. But according to the Tamil work it was the foster-mothers who did this. ⁷⁶

*tānevamuktvā Drupadasya putrah
paścādidam draupadīm abhyuvāca
nāmnā ca gotreṇa ca karmāṇā ca
saṁkīrtayāns tām nṛpatīm sametām.*

Mbh. 1.176.36.

In the Tamil work Śiśupāla is mentioned, ⁷⁷ before Jarāsandha ⁷⁸ and Bhagadatta. ⁷⁹ In the Bālabhārata Bhagadatta is mentioned before Śiśupāla. In the southern version of the Mahābhārata the same order as that found in the Bālabhārata is followed. ⁸⁰ In the Tamil work Nīla, a Pāṇḍyan king, as well as a Cola king and a Cera king are also mentioned. ⁸¹ All the Tamil kings are not mentioned in the Bālabhārata, although Nīla is mentioned there as Māhismatinātha. Of course in the Mahābhārata Nīla is mentioned as one of the celebrated kings. The southern version of the Mahābhārata makes mention of the Tamil kings although Nīla is not spoken of as the king of Pāṇḍya.

*pāṇḍyakeralacolendrās trayas trefāgnayo yathā
āsaneṣu virājante āsām āgastyam āsṛitāḥ
1.1816*.*

.....Nīlaś Citrāyudhas tathā

Mbh. 1.177.10 b.

⁷⁵ Stanzas 11-21, Draupadimālāyittasarga.

⁷⁶ Stanza 34, Draupadimālāyittasarga.

⁷⁷ Stanza 42, Draupadimālāyittasarga.

⁷⁸ Stanza 43, Draupadimālāyittasarga.

⁷⁹ Stanza 44, Draupadimālāyittasarga.

⁸⁰ 1.177.12 b; 1819*, line 3. The Critical edition omits Śiśupāla's name altogether here.

⁸¹ Stanza 45 45, Draupadimālāyittasarga.

When Kārṇa strung up the bow, it struck his diadem-adorned head⁸² and he fell down. Kārṇa merely succeeded in bending the bow to such an extent as to make the interval of space between the two extremities as short as a hair could pass through, according to the Bālabhārata also.

*cāpam mahāntam tapanasya sūnau
adhijyamātanvati romamātre
sa tam vicikṣepa.....* (Bālabhārata).

In the Mahābhārata we are told however that just at the time when Kārṇa was about to aim at the target, Draupadī cried aloud that she would not marry a charioteer's son. He thereupon threw the bow in sorrow and returned.⁸³

Arjuna conquered Kārṇa in the ensuing fight and Bhīma too overpowered Śalya. Both the vanquished fled thereupon saying that it was inglorious to fight with the brahmins, no matter whether they won or lost.⁸⁴ In the Bālabhārata we are told that when fight ensued between the two pairs, Kārṇa and Arjuna, Śalya and Bhīma, the other kings were mere spectators admiring their valour. Substantially there is agreement here between the Tamil work and the Mahābhārata version.

tad adbhutatamam dṛṣtvā sarve te dūrataḥ sthitāḥ

1.1864*, 2.

kṛiyatām avahāro' smād yuddhād brāhmnasamyutāt

Mbh. 1.181.31 ab.

The other kings began to suspect at this stage about the true identity of Bhīma and Arjuna who were in the disguise of Brahmins. These kings were prevented from fighting further by Kṛṣṇa and they turned back.⁸⁵ According to the Mahābhārata Arjuna and Bhīma vanquished Kārṇa and Śalya and when the kings gathered together with a view to begin a fresh fight Kṛṣṇa prevented it.⁸⁶

The things that happened subsequent to Pāṇḍavas' reaching their temporary house were reported to Yāgasena by spies and rejoicing at this

⁸² Stanza 53, Draupadimāloiyyittasarga.

⁸³ 1.1827*, stanzas 1-3.

⁸⁴ Stanzas 61-62, Draupadimālaiyyittasarga.

⁸⁵ Stanza 63, Draupadimālaiyyittasarga.

⁸⁶ Mbh. 1.181.32, Appendix I, No. 99, lines 4-10 refer to Dharma conquering Duryodhan.

news all his doubts being dispelled, he came to where they were residing and took them all to his own palace.⁸⁷ According to the Mahābhārata version however, Dhṛṣṭadyumna himself followed the Pāṇḍavas unobserved and in hiding himself noted everything which he subsequently reported to his father whereupon Drupada sent his purohita to quell further doubts about their identity and later through messengers he got them to his place. Among all the things that were placed before them they took only the weapons. This made it clear to Drupada that they were not Brahmins, but only the Pāṇḍavas and he seated them therefore on thrones embedded with lustrous gems.⁸⁸ In the Mahābhārata we are further told that at the request of Drupada, the Pāṇḍavas revealed their identity and told him everything that had happened after they left the lac-palace.

*Dhṛṣṭadyumnas tu pāñcālyah prṣṭhataḥ kuruṇandanau
anvagacchat tadā yāntau Bhārgavasya niveśanam*

Mbh. 1.181.1.

*Dhṛṣṭadyumnaḥ somakānām prabarho
vṛttam yathā yena hṛtā ca kṛṣṇā*

Mbh. 1.185.1cd.

*tatas sa rājā Drupadaḥ prahrṣṭaḥ
purohitam preṣayām tatra cakre*

Mbh. 1.185.14 ab.

*pāñcālārājasya samīpato'nyaḥ
tatrājagāmāsu naro dvitīyaḥ*

Mbh. 1.185.28 bc.

*utkrāmya sarvāṇi vasūni tatra
sāṅgrāmikāny āvivīśur nṛvirāḥ*

Mbh. 1.186.14 cd.

*papraccha cainam dharmātmā yathā te pradrutāḥ purā
sa tasmai sarvam ācakhyāv ānupūrvyena pāṇḍavaḥ*

Mbh. 1.187.14.

⁸⁷ Stanza 68, Draupadimālaiyittasarga.

⁸⁸ Stanza 69, Draupadimālaiyittasarga.

With the exception of Pāṇḍavas being seated on thrones all the rest is found in the Mahābhārata.

According to the Tamil work Nālāyani became Indrasenā and married Maudgalya, whose mind was fixed on penance and therefore he deserted her. At the time of desertion, much overpowered by her love towards him, Indrasenā asked him as to what she was to do separated from him. He advised her to make penance for Śiva and she followed his advice.⁸⁹ The Mahābhārata also says also at the time of desertion Indrasenā requested Maudgalya to take her too with him. He cursed her thereupon to be born as Drupada's daughter and marry five husbands because she was impeding his penance. Then she made penance for Śiva.

*praśīda bhagavan mahyam na mām ulśraṣṭum ārhasi
avitṛptāsmi brahmarṣe kāmānām kāmasevanāt*

Appendix I, No. 100, lines 71-72, Mbh.

*yasmāt tvam mayi niśāṅkā hy avakṭavyam prabhāṣase
ācaranti topovighnam tasmāc chrṇu vaco mama
bhaviṣyasi nṛloke tvam rājaputri yaśasvinī
pāñcālārājaśya sutā Drupadasya mahātmanah
bhavitāras tu te tatra patayaḥ pañca viśrutāḥ*

Appendix I, No. 100, lines 75-79, Mbh.

After Śiva made his appearance, Indrasenā bathed in the Ganges and was weeping alone. The tears streaming from her eyes fell into the waters and became transformed into a cluster of beautiful golden lotuses. Indra looked at this wonder and approached her asking her what it was.⁹⁰

Once in Naimiśāranya, the devas were performing a sacrifice. Yama in his *dīkṣā*, engrossed in ceremonial rites could not perform his legitimate duties. Hence the earth was overcrowded. Gods like Indra, Candra, Varuṇa and Kubera, fearing much this state of affairs, went to Brahmā, who told them that from out of their semen another person born like Yama, would destroy the overpopulation. These gods were coming from celestial regions to earth and were going towards Naimiśāranya. They saw a golden lotus in the Ganges and marvelled at it. Then Indra approached the girl that was near the lotus and asked her what it was. This is the version in the Mahābhārata.⁹¹

⁸⁹ Stanzas 79-80, Draupedimālaiyittasārgā.

⁹⁰ Stanza 82, Draupedimālaiyittasārgā.

⁹¹ Mbh. 1.189.1-12.

Indra fell down on account of the anger of Śiva and Śiva further took him to a cave and showed him four other Indras with vajrāyudha in their hands.⁹² According to the Mahābhārata-version also, Śiva warned him not to commit the same fault of indifference and showed him a cave saying "enter here which contains others like you". Indra said, "let me not be like them." Śiva got wild, "since you insulted me on account of your youth enter here!"

*tam abravīd bhagavān ugratejā
maivam punaḥ śakra kṛthaḥ kathañcit*
Mbh. 1.189.18cd.

*vivṛtya caivāviśa madhyamasya
yatrāsate tvadvidhāḥ sūryabhāsaḥ*
Mbh. 1.189.19cd.

*sa tām abhipreṣya babhūva duḥkṛtāḥ
kaccin nāham bhavitā vai yatheṃe*
Mbh. 1.189.20.

*darīm etām praviśa tvam śatakrato
yan mām bālyād avamaṁsthāḥ purastāt*
Mbh. 1.189.21cd.

All the former four Indras along with the new one worshipped Śiva who told them that they should become husbands of Indrasenā. Thereupon these gods came to be born on earth.⁹³ In the Mahābhārata also we are told that Śiva told all the five Indras in the caves, "Be born on earth as kings of men on account of your insult to me; and then marry her (Indrasenā) who also will be born as a king's daughter. After expiating your fault through your righteous rule come back again to the celestial regions." All the five Indras then requested him to grant Yama, Vāyu, Indra and Aśvinī-devas as their future fathers. Śiva granted them this boon.

yonim sarve mānūṣīm āviśadhvam
Mbh. 1.189.25 b.

*tām cāpy eṣām yōṣitam lokaḥkātām
śriyam bharyām vyadadhān mānuṣeṣu*
Mbh. 1.189.29 cd.

*āgantāraḥ punarevendralokaṃ
svakarmaṇā pūrvajitam mahārham*
Mbh. 1.189 26 ab.

⁹² Stanzas 83 and 84, Draupadimālaiyiṭṭasarga.

⁹³ Stanza 85, Draupadimālaiyiṭṭasarga.

There is a significant departure in the Tamil work from both the *Bālabhārata* as well as the *Mahābhārata* in the matter of Draupadī's marriage with the Pāṇḍavas. Here alone it is mentioned that she went around the fire each time she wedded the Pāṇḍavas one after the other.⁹⁴ Possibly Villiputtūrār had in mind the line *babhūva kanyaiva gate gate 'hani*.⁹⁵

When the Pāṇḍavas were flourishing in Pāncālanagara Dhṛtarāṣṭra held a consultation with his ministers and decided to give the kingdom that was his due to Dharmaputra. The Tamil work departs from both the *Mahābhārata* and the *Bālabhārata* in that according to its version only some messengers were sent and not Vidura for inviting Pāṇḍavas to Hastināpuri.⁹⁶

6. *Indraprastha Sarga.*

When the Pāṇḍavas went to the awe-inspiring forest called Khāṇḍavaprastha, Kṛṣṇa was thinking as to how they were to live there. He thought of Indra who immediately came along with Viśvakarma. Indra commanded Viśvakarma to build up a marvellously beautiful city. This command was carried out and the city won the admiration of every one. This is according to the Tamil version (stanzas 8-12, *Indraprasthasarga*). The Tamil work gives also a description about the city *Indraprastha* (stanzas 13-26). Such a description is not found in *Bālabhārata*. Both the *Mahābhārata* and the *Bālabhārata* tell us merely that the divine carpenter said to Kṛṣṇa that he had come through the command of Indra who had asked him to build a city for the Pāṇḍavas. Then Viśvakarma built the charming city, named after Indra.⁹⁷ A long description of *Indraprastha* is found in the *Mahābhārata* also.⁹⁸ According to the Tamil version the Pāṇḍavas entered the city and

⁹⁴ Stanza 96, *Draupadimālaiyiṭṭasarga*.

⁹⁵ Mbh. 1.190.14 d.

⁹⁶ Stanzas 107, 108, *Draupadimālaiyiṭṭasarga*

Cf. Mbh. 1.195.—1.197.

and *tato jagāma Vīduro Dhṛtarāṣṭrasya śāsanāt
sakāśam Yajñasenasya.....*

Mbh. 1.198.7.

⁹⁷ 1.1987*.

⁹⁸ Mbh. 1.199.29-49.

Viśvakarma showed it to them. The Pāṇḍavas climbed up a gopura and went into raptures over the new city built up for them.⁹⁹ Only a few of the descriptions here are in agreement with those found in the Bālabhārata which has ten ślokas upon Viśvakarma showing the beauty of the city to Dharma. All this is not found in the Mahābhārata.

7. *Arjunatīrthayātrā Sarga.*

Arjuna in his *tīrthayātrā* met Ulūpī while he was bathing in the Ganges. He fell in love with her and followed her to the nether world where he married her.¹⁰⁰ In both the Mahābhārata and the Bālabhārata it is mentioned that Ulūpī fell in love with him and took him to her palace in the nether world.

*apakṛṣṭo mahābāhur nāgarājasya kanyayā
antarjale mahārāja ulūpyā kāmayānaya*

Mbh. 1.2.06.13.-

and *ṛhitvā svapitūr veśma nīto'yam Pāṇḍu-nandanah*
1.2022*.

All the places mentioned in the Tamil work which Arjuna visited after bathing in the Yamunā, namely, Śeṣagiri, Kāñcīpura, Tiruvaṇṇāmalai, Tirukkōvalūr, Tiruveṇṇeyanallur, Tiruvatikai, Tiruvayintirapuram, Citambara and Maturai,¹⁰¹ are not found in the Bālabhārata, which merely says that Arjuna went to the land of the Colas in the south, then to Maṇalūrpura of the Pāṇḍyas, where he met and married Citrāṅgadā; afterwards went to Setu and came back and again met Citrāṅgadā and left his child with his father-in-law, he reached Gokarṇakṣetra after visiting a few places in the West. In the Mahābhārata also Arjuna's marriage with Citrāṅgada is mentioned. In the Bālabhārata however we are told that Arjuna married her in the ordinary way and not first by gāndharva form of marriage,¹⁰² and lived with her for a long time. Arjuna allowing his son to be adopted by the Pāṇḍya king is found in all

⁹⁹ Stanzas 27-37, Indraprasthasarga.

¹⁰⁰ Stanza 8, Arjuna's *tīrthayātrāsarga*.

¹⁰¹ Stanzas 11-55, Arjuna's *tīrthayātrāsarga*.

¹⁰² Stanza 29, Arjuna's *tīrthayātrāsarga*.

After Arjuna's identity was known the king of Pāṇḍya rejoiced at the news and gave her to him willingly celebrating the ordinary marriage (stanzas 36-41).

the three works. According to the Mahābhārata Arjuna went to Maṇalūr, saw Citraṅgadā and fell in love with her. He went to her father and told him his desire. The king rejoiced at this knowing him to be Arjuna and married his daughter to him with the agreement that the son born to Arjuna through her should be given to Citravāhana for adoption.¹⁰³

This happy alliance between the Pāṇḍavas and the Pāṇḍyas is mentioned not only in the Viṣṇu purāṇa and the Bhāgavata purāṇa, but also found mentioned in Nacciṇārkiṇiyar's commentary on Tolkāppiyam, the oldest Tamil work. In the folk-song Alliaracāṇimālai of Pukalēntippulavar, Citraṅgadā is the heroine Alli. The old Tamil works speak of Pāṇḍyas as Paṇcavar, reminding us of the happy relationship between the two. One of the old Tamil poets, Muṭinākarāya, goes to the extent of mentioning that not only this Citravāhana Pāṇḍya, but also a Cera king, Utiyan by name, took part in the Mahābhārata war. In the celebrated Cilappatikāram again we are told that even a Cola king helped the Pāṇḍavas. As a matter of fact, the oldest Tamil poets time in and time out laid stress on the Pāṇḍava-Pāṇḍya alliance. For instance in one of the Tamil poems attributed to Kōtamana, who is believed to have lived according to the great Nacciṇārkiṇiyar in the first Sangam period, we find a reference to Dharmaputra.¹⁰⁴ All these show that there was no antagonism or hostility between the north and south of India, in very ancient times.

Before Arjuna reached Gokarṇa he transformed five crocodiles into divine nymphs, who were suffering from a curse Indra.¹⁰⁵ In the Bālabhārata this is not mentioned. So it is clear that Villiputtūrār follows here the original Mahābhārata,¹⁰⁶ except in the matter of stating that it was due to Indraśāpa (*intiraṇ veñcāpattāl*) that the divine nymphs were crocodiles. But even this discrepancy can be explained away as the commentator suggests by taking Indra (*intiraṇ*) as Munindra (*munintiraṇ*). Arjuna reached Dvārakā after leaving the sages who followed him in Gokarṇa and in order to obtain Subhadrā he took up the garb of a Sanyāsin.¹⁰⁷ The Bālabhārata version is that from Gokarṇa, Arjuna went to Prabhāsa where he left those who followed him and in order to

¹⁰³ 1.207.13-23; and Nos. 2035*, 2036* and 2037* in the critical notes on these stanzas.

¹⁰⁴ Kalki, October 1, 1943, pp. 37-38.

¹⁰⁵ Stanza 48, Arjunatīrthayātrāsarga.

¹⁰⁶ Mhb. 1.208 and 1.209.

¹⁰⁷ Stanza 49, Arjunatīrthayātrāsarga.

obtain Subhadrā he disguised himself as a Sanyāsin and thought of Kṛṣṇa who came and left Arjuna in Raivatakagiri and reached Dvārakā. The Mahābhārata version is substantially in agreement with this.¹⁰⁸

Subhadrā began to entertain some suspicion in her mind about the Sanyāsin and asked him one day as to what his place was. He thereupon replied that it was Indraprastha. She made enquiries about all the Pāṇḍavas excepting Arjuna. Arjuna asked her why she had forgotten him. One of her attendants then replied that Subhadrā deliberately omitted Arjuna's name as she was to wed him. This attendant further told him that they had heard that Arjuna had gone on tīrthayātrā. Now Arjuna revealed his identity.¹⁰⁹ In the Bālabhārata as well as the Mahābhārata it is Subhadrā herself who asks the Sanyāsin where Arjuna was.¹¹⁰

After Arjuna left Dvārakā for Indraprastha with Subhadrā, Balarāma learnt the news and with his entire army as well as the Yadukula kings fights with Arjuna.¹¹¹ According to the Mahābhārata as well as the Bālabhārata, Balarāma only wanted to fight with Arjuna along with an array of Yādava warriors, but he was appeased by Kṛṣṇa's words.¹¹²

8. *Khāṇḍavadahana Sarga.*

When Agni was burning the Khāṇḍava forest, Maya cried aloud "Arjuna ! save me." Kṛṣṇa with eyes red and holding up the lustrous Cakrāyudha in his hand showed him mercy.¹¹³ According to the Mahābhārata, Agni did not burn Maya, after Kṛṣṇa himself with Cakrāyudha desisted from killing him, since Maya sought protection from Arjuna, which Arjuna promised.¹¹⁴

From an examination of the entire Ādiparva of Villiputtūrār Bhāratam in Tamil, which we have given above, it is clear that the work was not

¹⁰⁸ 1.210.1-15 *ab*, No. 204*.6, and 1.210. 15 *cd*.

¹⁰⁹ Stanzas 63-68, Arjunatīrthayātrāsarga.

¹¹⁰ Appendix I, No. 114, lines 117-135.

¹¹¹ Stanzas 79-81, Arjunatīrthayātrāsarga.

¹¹² Mbh. 1.212.25-213.12.

¹¹³ Stanza 74, Khāṇḍavadahanasarga.

¹¹⁴ Mbh. 1.219.37-40.

merely based on Agastya's epitome as was once supposed.^{114a} No doubt as Villiputtūrār intended to write only an epitome of the great work, he must have used the Bālabhārata also. Such a thesis cannot be contested in view of the ample evidence which we have shown in the foregoing paras. There can be no doubt that Villiputtūrār must have had access also to several versions of the great epic in many Purāṇas. But it is quite evident that he had mainly in view the original Mahābhārata, obviously through the southern recension of the epic. A complete evaluation as to how far he was indebted to the Bālabhārata as well as to the other Purāṇic versions is undoubtedly necessary. But this is a task which we have not set ourselves to here. Many other problems also arise such as his dividing the work into Sargas and his use of peculiarly Sanskritised compounds¹¹⁵ as well as modifications of numerous Sanskrit words.¹¹⁶ We have confined ourselves, in this paper, only to the Ādiparvan mainly for reasons of space.¹¹⁷ But it is needless for us to point out that it will be most fruitful to subject the entire Tamil work to a detailed comparison with the whole of the Mahābhārata, using fully all the *apparatus criticus* which is furnished by the Critical Edition.

^{114a} *Villiputtūrār-Bhāratam*, Introd. pp. 4-7 (Ādiparva). See also Introd. to Āraṇyakaparva, p. 5 and to Virāṭaparva, p. 2.

¹¹⁵ See for instance the tatpuruṣa compound vayanilai consisting of Sanskrit vayas and Tamil nilai. Stanza 123, Kurukulasarga.

Cf. also *viṇanati* from Sanskrit *viyat*+*naḍī*. Very significant is the epithetised compound *aṇṇameymmaiṇṇiṇṇi*, stanza 45, line 3, Vāraṇavasarga "he from whom truth has left," meaning "you who have given up truth!" We need hardly point out here that many a problem in syntax and stylistics arises from this interesting, melodious poem of Villiputtūrār.

Cf. again *vāḷuśikaram*, evidently from Sanskrit *bāhu-śikhara* (stanza 71, line 3, Vāraṇavasarga).

¹¹⁶ For instance *ācān*, *paṇṇi* for *ācārya*, *patni* respectively, stanza 34m Vāraṇavasarga.

¹¹⁷ We are indebted to Prof. KATRE for suggesting this interesting subject to us.

A word about the method of transliteration followed in this paper as applied to the Tamil passages cited here may be felt to be necessary. We have not taken into account the precise phonetic values of the sounds transcribed by the traditional Tamil alphabet. For purposes of convenience, we have assumed for instance that there are no voiced or aspirate stops in any position. But for well known Sanskrit words such as proper nouns, we have followed the more usual method in transliterating accurately, even when these words occur in the Tamil passages, e.g. Duryodhana.

TRANSLATIONS¹ OF THE *MAHĀBHĀRATA* INTO ARABIC AND PERSIAN.

By

SHAIKH CHĀND HUSAIN.

Transmission of ancient lore by translations from one language into another, is one way of enriching a civilisation. During the Muslim rule, the earliest effort that seems to have been made in this direction, was almost in the very first century² of the birth of Islām, although that effort could not bear satisfactory fruit until the establishment of the 'Abbāsīd Caliphate. Of the earlier 'Abbāsīds, the regimes of Hārūnu'r-Raṣhīd and his son Ma'mūn are well-known for the translation activities of their courts. Scholars and learned people from other religions, sects and nations, who were amply patronised by the Caliphs, succeeded in bringing out complete translations into Arabic of a good many Latin, Greek, Roman, Pahlawī and Sanskrit works that were considered useful at that time. Philosophy, Metaphysics and Logic, Ethics and Moral Sciences ; Mathematics, Astronomy and Astrology ; Physics, Chemistry, Botany, Zoology and Geology, Poetics, Rhetoric and Oratory ; History, Geography and Anthropolology ; Works dealing with Religions, Sects' Superstitions, Legends, Romances, Fables, Tales and Fiction ; Medicine and Surgery—in fact a number of works bearing upon all these subjects was undertaken for translation into Arabic. It was with the help of the knowledge and information contained in these works that the Muslims

¹ As this paper deals only with the *Mahābhārata*, I have not taken into consideration other works—multifarious in number—which were translated into Arabic and Persian. I propose to deal with this wider problem in a separate paper "Muslim interest in Sanskrit learning," to be published later.

² Especially the Umayyad period, when Syrians and Jews rendered into Arabic a number of books ; see NICHOLSON, *Lit. Hist. of the Arabs* (Cambridge 1930), 358.

achieved an unprecedented success in their scientific and other pursuits, and it is again on account of their unsparing labour that many a gem of world-knowledge has been rescued from perishing. It need not particularly be pointed out that in the above work of translation Sanskrit and Indian works received a paramount attention.

Dr. Mawlawī Sayyid Sulaimān Nadwī has given in his masterly work entitled '*Arab wa Hind Kay Tā'illuqāt*, Allāhābād 1930, a complete and descriptive list of all those Sanskrit works that were translated into Arabic. But as we are here concerned with the *Mahābhārata* alone we need not go into any lengthy discussion about other works translated from the Sanskrit language.

So far as our knowledge goes the earliest effort to transmit the *Mahābhārata* lore was made in Pahlawi, through which language some of its stories and legends were translated into the Arabic by Ibnu'l-Muqaffa³ in his Arabic classical work, the *Kalila wa Dimna*.⁴ The present Arabic classic of the *Kalila Wa Dimna* is therefore the first work that contains stories borrowed from the *Mahābhārata*.

Another Arabic work which contained some *Mahābhārata* stories is the original of the present Persian work, the *Mujmalu't-Tawārīkh*⁵ of which an incomplete but unique copy is preserved in the *Bibliothèque du Roi* at Paris (MS. No. 62). This unique copy was described at different times in the *Journal Asiatique* by M. QUATREMERIE and M. MOHL. An abstract from it containing the *Mahābhārata* legend was published by M. RAINAUD, l' Institute, Paris, in 1845 in his work which bore the title : "*Fragments Arabes et Persans, inédits, relatifs à l'Inde, antérieurement au XIe siècle de l'ère chrétienne*" (that is, "Unpublished Arabic and Persian Fragments about India before the eleventh century of the Christian Era').

³ The Persian Rhzbiū, "better known as "Abdullāh Ibnu'l-Muqaffa', who was put to death (circ.AD. 760) by order of the Caliph Manšūr, made several translations from the Pehlvi or Middle Persian literature into Arabic"- NICOLSON, *op. cit.*, 346.

⁴ The original Sanskrit was rendered into Pahlawi, from which language Ibnu'l-Muqaffa' made his famous version into Arabic.

⁵ ELLIOT and DAWSON, *Hist. of India etc.*, i. 100; also see Mawlawī Sayyid Sulaimān NADWĪ, "*Arab wa Hind Kay Tā'illuqāt*, 158-59.

This was accompanied by a translation in French by the editor. My friend and colleague Dr. R. G. Harshe^{5a} published an English translation of the French version, with extensive and critical notes which throw a good deal of light upon the Muslim view of the *Mahābhārata*. In the introduction to this *Mujmalu'-t-Tawārīkh*, the author says⁶ :—

“ I have seen an ancient book of the Hindús which Abú Sálīh bin Shu'aib bin Jāmi⁷ translated into Arabic from the Hindwāni language (Sanskrit). This work was translated into Persian ('from the Arabic'^{7a}) in 417 A. H. (1026) A. D. by Abú-l Hasan 'Alī bin Muhammad al Jāli, Keeper of the library at Jurján for a Chief of the D'Imites. The book I saw was in the hand-writing of the author, and bore the date above given. It is a custom of the Hindu writers on philosophy to put speeches into the mouths of beasts and birds as in the book of *Kal'ila wa Dimna*, and accordingly many such speeches are introduced into this book. I have here introduced the (account of the) origin of the kings and a short history of them, and I have copied it because it is not to be found anywhere else—but God knows. ”^{7b}

The above quotation from the introduction to the *Mujmalu'-t-Tawārīkh* makes it abundantly clear that the *Mahābhārata* legend, as contained in it, was directly translated into Persian from the Arabic version. These stories are 'almost verbatim the same as they are at present preserved in the *Mahābhārata*'.⁸

The impetus, which the earlier 'Abbāsids gave to translations from Sanskrit had another important aspect, namely, that people took a greater interest in matters pertaining to India. As a result many of the legends and old tales, superstitions and beliefs that were peculiar to India, were either directly borrowed or indirectly introduced in works produced at that time, with certain alterations to suit the peculiar atmosphere ; a number of

^{5a} BDCRI. ii, 314-24.

⁶ I have not been able to find out the name of the author nor the exact date of the composition of the book.

⁷ This Abú Šāliḥ b. Shu'aib b. Jāmi' is also the translator of a number of other works relating to India, see, Mawlahi Sayyid Sulaimān Nadwī, *Op. Cit.*, 159 sq.

^{7a} This is clear in the Persian version published by M. Reinaud (see above). see Harshe, BDCRI. ii, 314-15.

^{7b} This translation is reproduced here from ELLIOT and DOWSON, *Op. Cit.*, and does not differ much from the French or the English translation, see BDCRI, ii, 314-15.

⁸ ELLIOT and DOWSON, *Op. Cit.* p. 101.

instances of such direct or indirect borrowings from Sanskrit works can be easily cited. Apart from such borrowings, one might even suspect that many of the themes of certain poetical and prose works might have been directly inspired by Sanskrit writings. Even the present Persian national epic, the great SHĀH NĀMA of Firdawsī⁹—the greatest work of its kind in Persian literature—contains legends which appear to bear resemblance to, and probably might have derived their inspiration from, some of the legends of the *Mahābhārata*. In fact an orientalist has already pointed out the resemblance of certain stories and episodes in the SHĀH NĀMA of FIRDĀWSĪ with similar episodes in the *Mahābhārata*.¹⁰ I have it on reliable authority that the late Parsī scholar, Sir Jīwanjī MODĪ “used to compare the episode of ‘Bezhan and Manījeh’ with the Paurānic episode of ‘Ushā and Anīruddhā’ (commonly known as ‘Ushā haraṇa’) in which Anīruddhā falls in love with the daughter of Bānāsura (Ushā) and has adventures similar to those of the young ruffian Bezhan with Afrāsiyāb’s daughter”—¹¹ Be that as it may, I am inclined to think that a comparative study of the SHĀH NĀMA, the *Mahābhārata* and the *Rāmāyaṇa* is likely to reveal a number of similiarities and resemblances. But however instructive and interesting this study might prove to be, it does not unfortunately fall within the scope of the present paper.

The interest which Muslims took in Sanskrit and Indian studies continued, but not so vigorously as before, up to the establishment of the Mughal rule in India. During this intervening period the names of Abū Raihān al-BĪRŪNĪ¹² and Amīr KHUSRAW¹³ stand foremost among those who took a keen interest in Sanskrit and Indian studies.

⁹ It is known that Firdawsī based his epic on the “*Khudāy Nāma*”. The latter was translated from the Pahlawī into Arabic, see BROWNE, *Lit. His of Persia*, i. 123, where the matter is fully discussed.

¹⁰ I am indebted for this information to my tutor, Khān Bahādur Professor Shaikh, M.A., I. E. S. (Retd.) But I had already arrived at this inference on my own. What really struck me was not merely the resemblance of a number of episodes but also the similiarity in the description of battles, to be found both in the *Shāh Nāma* and the *Mahābhārata*.

¹¹ I am indebted for this information (through the courtesy of Khān Bahādur Professor Shaikh) to Khan Siḥeb J. E. Sanjīna, B. A., formerly Oriental Translator to the Government of Bombay, who is himself a reputed scholar of Sanskrit and Persian.

¹² Abū Raihān al-BĪRŪNĪ’s monumental works, the *Kitābu’l-Hind* (‘India’) and the ‘*Athāru’l-Bāqiyat*’ (‘Chronology of Ancient Nations’) are already familiar to students of Indian history in the translations made by Professor Sachau.

¹³ Amīr Khusrāw, one of the most important Persian poets and writers of the *Tughluq* period is already well-known for his interest in Indian studies. He was born in A. H. 651 and died in 725 A. D. 1253-1325.

2. The next in importance is Naqīb Khān. In Abu'l-Faḍl's Ā'in-i-Akbarī among the nobles and courtiers of Akbar's court he is mentioned as number 161. According to the *Ma'āthiru'l-Umarā'* (Vol. iii, p. 815) Naqīb Khān's ancestors belonged to Iran. He came with his father to Akbar's court and received in the twenty-sixth year of that monarch's reign the title of Naqīb Khān, by which he is generally known. He died in Jahāngīr's reign²³.

3. Shaikh Sultān of Thānēsar, also known as Hājī Sultān Thānēsārī, was engaged on the work of completing and revising the work of translation for four years. We have already stated elsewhere that Naqīb Khān laid the foundation but the work of completing it fell to the lot of Hājī Sultān²⁴.

4. The fourth scholar who took part in the work was Mullā Shīrī, a court poet. Besides translating the *Mahābhārata* he was also assigned the work of translating into Persian the *Haribans* (*Harivamśa Parvan*), "a work which deals with the life and deeds of Shīrī Krishna"—He is also the author of a work called *Hazār Shu'ā* ("هزار شعاع"), i.e. 'Thousand Rays' in praise of the sun. He was killed in 994-1586.²⁵

Among the many collaborators in the above version of special interest to us is "Bhāwan" (Shaikh)—a Brahmin from the Deccan who later embraced Islām. Naqīb Khān makes a specific mention of his name among his assistants.²⁶

The second important version of the Persian translation of the *Mahābhārata* is by Abu'l-Faḍl's brother, the poet-laureate Abu'l-Faiḍī.^{26a}

The third version is generally ascribed to Prince Dārā Shukūh, son of the Mughal Emperor Shāh Jahān. Dārā Shukūh has been rightly considered a 'great thinker' and naturally found food for thought in

²³ Jahāngīr's *Memoirs*, translated into English by BEVERIDGE, 1.264, etc.

²⁴ Badā'uni, *Op. Cit.*, per text 3 118—also see, ABORI, 6, 98.

²⁵ ABORI, 6.98; Badā'uni, *Op. Cit.*, (Lowe's Trans.), 2.362.

²⁶ Rieu, *Op. Cit.*, 57.

^{26a} I have discussed Faiḍī's version at same length in my paper "A Descriptive Handlist of Arabic, Persian and Hindustani Mss. belonging to the Satara Historical Museum etc."—BDCRI, 4.—One distinguishing feature of the version is its embellished style, mixed with poetry.

mystic lore of all religions, especially ṣūfī'ism and Indian mysticism. To him we owe a number of translations from Sanskrit works.^{26b} It is a great pity that a number of works generally attributed to him are not extant. Even the MSS. of his Persian version of the *Mahābhārata* are extremely rare.

Dārā Shukūh's successor in the field of the translation of the *Mahābhārata* is a poet Badī'u'l-' Aṣr, commonly called Hājī Rabī' Anjab, Anjab being his penname. He is the author of a "metrical version" of the *Mahābhārata*. Hājī Rabī ' Anjab gave himself out as a native of Andalūs (Spain). He came in his childhood to Iṣfahān, where he spent thirty years, and became a pupil of Murtaḍā Qulī Baig Zanknah, surnamed Wālā-i-Iṣfahānī. After long travels he settled in Delhī, where he died upwards of a hundred years old. Muṣḥafī, who saw him some months before his death, mentions, among his works, an imitation of the *Khamṣa* of Nizāmī, a *Diwān* of sixty-thousand verses, an extensive work on Imāmī tenets and the above-mentioned "metrical translation of the eighteen Parvas of the *Mahābhārata*"²⁷

The fifth and the last among the more or less complete Persian translation of the *Mahābhārata* must be mentioned a very late "poetical version" prepared by Budan Lāl alias Gangā Prashād. A copy in MS. of this versified translation is preserved in the Aṣafia State Library, Hyderābād Deccan, under History section, No. 1747. It is a pity that I cannot give specimens from this version as I could not get it myself.

Besides these versions of the more or less complete *Mahābhārata*, there are to be found translations in Persian of a number of separate and independent episodes and Parvans²⁸. I reserve them for treatment later.

^{26b} For the details of which see the Introduction to his *Majna'u'l-Baḡrain* ed. with translation notes, etc. by Prof. Huq. (Bibl. India, Calcutta 1920); Code, Vol. 94 (1943), pp. 75.

²⁷ *Ibid.*, 2.711; Compare *Hamīsha Bahār*, *Oude Cat.*, 118.

²⁸ For instance, the *Bhagwat Gīta*, the *Harbans*, *Nal Daman*, etc.

The establishment of the Mughal rule in India gave a new life and sense to matters Indian. Hitherto the Muslim interest in Sanskrit and Indian studies was predominantly academic, bereft of any political objective. But with the advent of the Mughals matters changed. They not only ruled but also made India their home. As such, a greater understanding of the religions, beliefs, superstitions, history, culture and thought of the inhabitants of India became absolutely necessary for them. Bābur,¹⁴ the first of the Mughal rulers, was himself a keen and careful student of Indian life and thought, and his observations regarding the above matters have got a great value from the point of view of Indian thought. After him his unfortunate son Humāyūn had neither sufficient time nor conducive circumstances to devote to Indian studies. Humāyūn's son, Akbar, devoted the utmost care to the study of other religions, histories and cultures. His attitude towards Sanskrit and Indian religions was of the most commendable type, and it was by his specific orders that a good many important Sanskrit works were undertaken for translation into Persian. The *Mahābhārata* was the most important of these.

Leaving aside the partial Arabic versions of the *Mahābhārata* episodes and legends, about which we have spoken at the commencement of this paper, there have been, so far as I know, at least FIVE more or less complete versions of the work in Persian. Before giving details about the Persian translations of the *Mahābhārata*, I would like to discuss another very important point: "Whether or not the Muslim Scholars, to whose effort these translations owe their existence, themselves knew the Sanskrit language".

According to Mullā 'Abdu'l-Qādir Badā'ūnī, the author of the celebrated *Muntakhabu't-Tawārīkh*¹⁵ and one of the so-called translators of the *Mahābhārata*, order for the translation of the above work was given by the Emperor in 990/1582-83. "In the year 990", says Badā'ūnī, "His Majesty assembled some learned Hindūs, and gave them directions to write an explanation of the *Mahābhārata*, and for several nights he himself devoted his attention to explain the meaning to Nakīb Khān, so that the Khān might sketch out the gist in Persian. On a third night the king

¹⁴ Bābur (1526-1530) wrote his *Memoirs* in the Turkish language. It was translated into Persian by 'Abdu'r-Rahīm Khānakhānān, and into English by Dr. LEYDEN and Mr. W. ERSKINE.

¹⁵ *Bibl. Indica. Series*, Calcutta. This was translated into English by LOWE.

sent for me and desired me to translate the *Mahā-bhārat* in conjunction with Nakīb Khān. The consequence was that in three or four months I translated two out of the eighteen sections, at the puerile absurdities of which the eighteen thousand creations may well be amazed..... The translation was called *Razm-nāma*, and when fairly engrossed and embellished with pictures, the nobles had orders to take copies..... Shaikh Abū-l Fazl.....wrote the Preface.....".^{15a} The above quotation reveals a very important fact, namely, that the 'Imperial Persian Version' of the *Mahābhārata* is no more than the 'gist' of the work as "explained" to the so-called translators by the 'learned Hindūs', and that there is no warrant to say that any or all of the Muslim scholars had sufficient knowledge of the Sanskrit language, which would have enabled them to give an independent translation of the work. This is further clarified by the statement of the principal worker, Naqīb Khān, who says in the conclusion to a copy (of the *Mahābhārata* in MS.) described by Dr. Rieu^{15b} that he completed it (the work) in Sha'bān 992", and that he was assisted by some Brahmins, whom he calls

”ديبي مصر و ستاودهاني و مدسودن مسر (مصر) و چتر بهوج
و شيخ بهاون“

i.e. Devī-Miṣrā, Śatāvadhāna, Madhūsudana-Miṣrā, Çaturbhūja and (Shaikh Bhāwan).¹⁶ Even Faiḍī's statement in the concluding lines of the first Parvan of his version of the *Mahābhārata* ¹⁷

”این آد پر ب موافق ترجمه بهمنان کامل بفرمان حضرت
شاهنشاه عالم... پادشاه زمانه اکبر شاه بکلک نثر نثار و نظم نگار،
نغاگوی درگاه ابوالفیض فیضی، که (از) حضرت شاهنشاهی
بخطاب ملک الشعراء سرفراز است، باتمام رسید الخ -“

^{15a} Translation reproduced from ELLIOT and DAWSON, *Op. Cit.*, 50 537-38.

^{15b} *Cat.* 1.57-8 (Add. 5642).

¹⁶ *Rieu, Op. Cit.* 1.57.

¹⁷ Manuscript belonging to the Bombay Branch of the Royal Asiatic Society, No. ZZ.b.21, fol. 109 b. I am indebted to the Society for the loan of this MS.

more or less, confirms the above statement, for it is evident that Faiḏī based his version upon the "translation of the learned Brahmins". As such, his rendering also cannot be considered to have been derived from his personal knowledge of San krit, and is likely to suffer from omissions as is the case in his translation of *Lilāvati*¹⁸. Probably the other translators, namely Prince Dārā Shukūh and Hājī' Rabi' Anjab, had also to depend for their versions of the *Mahābhārata* on the learned Pandits, with whom they had surrounded themselves. Dārā Shukūh has certainly made it clear that he had utilised the services of his Pandit friends, whose names he has taken pains to enumerate.

A comparative study, therefore, of the various Persian versions of the *Mahābhārata*, which we shall soon mention, with the original Sanskrit text is calculated to prove highly fruitful and instructive, but is beyond the scope of the present paper.

Coming actually to the 'Imperial Version', that is, the version prepared under Akbar's order, we find that it was undertaken in A. H. 990. But the work was not completed before A. H.¹⁹ 992. When it was completed, Abu'l-Faḏl, the Prime Minister of Akbar, wrote an introduction to it in elegant prose²⁰. In this introduction,²¹ after a long encomium on Akbar Abu'l-Faḏl says :—

”... چون خاطر فیاض بمقتضای فطرت در اصلاح احوال
 جمیع طبقات برایا متوجر است، همواره در نظر دور بین دوست و
 دشمن و خویش و بیگانہ برابر می آید، چه هرگاه طریقه انیسف
 اطبائی ابدان در معالجت جسمانی چنین باشد، سحیر رضیر
 طبیبان نفوس بطریق اولی خواهد بود— پس شیمہ کریمہ دفتر
 معالجان امراض مزمنہ نفوس چرا نباشد— چون بدریافت کامل خود
 نواع فرایق ملت محمدی و جهود و هندو را بیشتر یافت، و انکار
 یکدیگر زیاده از اندازه معلوم شد، خاطر نکشدان بران قرار یافت

¹⁸ “ The translation in some passages departs so far from the Original as induces the suspicion that Faiḏī contended himself with writing down the verbal explanation afforded by his assistants (*Lilāvati*, p. 2).

¹⁹ *Badā'ūnī, Muntakhabu't-Tawārikh* and ELLIOT DAWSON, *Op. Cit.*, Vol. v, p. 537.

²⁰ Rieu, *Op. Cit.*, 1.57.

²¹ Printed at pp. 1-36, Newalkishore edition, Lucknow.

که کتب معتبره طائفین بزبان مخالف ترجمه کرده آید تا هر دو فریق بهرکت انفس قدسی حضرت اکمل الزمانی از شدت تعذت و عذاب برآمده جویای حق شوند و بر محاسن و عیوب یکدیگر اطلاع یابند در اصلاح احوال خود مساعی جمیل نمایند - ایضا از هر طایفه جمعی که از اقوال عالمان هرزه کار پیچمدان در پیش آمده خود را از اکابر دینی شمرده مقدمات دور از شاهراه دانش مستقیم به تلمیسات و تزویرات خاطر نشان عوام نموده اند، و این مزوران بی سعادت چه از نادانی و چه از بیدانتهی بمقتضای اعراض هوا و هوس کتب ادایل و نصایح سلف و اقوال حکماء و اعمال سنجیده گذشتگان مخفی داشته بطور دیگر و امیغیابند. هرگاه کتب فریقین به عبارتی واضح عام فهم خاص پسند ترجمه یابد تا ساده لوحان عامه بحقیقت کار رسیده از فضولیات نادانان دانانما نجات یابند بی بمقصود حقیقت برند. بنابراین حکم عالی شد که کتاب مهابهارت که رمزده ارباب مهابرت است، در اکثر اصول و فروع معتقدات برآمده هند اشتمال دارد و معتبرتر و بزرگتر از آن کتابی درین طایفه نیست، دانایان هر دو فریق و زباندانان هر دو طایفه از روی ایقلاف و اتفاق یکجا نشسته بمعرفت منصفان ماهر و مشرفان عاقل به عبارت عامه باب ترجمه نمایند. ایضا چون متعصبان بی دید بل پیشوایان اهل تقلید هند را بر دین خود عقیده بالاتر از اندازه است و مزخرفات معتقدات خود را چه از راه بی تمیزی چه از مریب انصافی منزله از نقص دانسته راه تقلید بسر میبرند و بر ساده لوحان امری چند خاطر نشان نموده از مطالب تحقیق باز داشته در اعتقادات باطله راسخ می سازند و منتسبان دین احمدی را که بر شرایف مطالب و نفایس علوم آنها اطلاع نیست، این طایفه را صاحب ترهات محض دانسته

بیحد و قیاس انکار این طایفه می نمایند. بناءً علی هذا عقل خردمند دان خواست که کتاب مهابهارت که بغث و سمین اکثر مطالب دین اشتمال دارد، بعبارت روشن ترجمه کرده آید. تا منکران عنان انکار خود گویند از بی اعتدالی باز آیند و معتقدان ساده لوح از اعتقادات تقلید شرمگین شده بطلب حق شوند، و عوام الناس مسلمانان، که اوراق کتب آسمانی و دینی را نیک مطالع نکرده اند و دیدۀ حیرت بین بر تواریخ مختلفه روزگار از خطائیان و خندیان و غیر ذلک نه کشوده اند، بل سخندان بزرگان ملت خود را مثل امام جعفر صادق (رح) و ابن عربی (رح) نخوانده اند، ابتدای آدمیان را هفت هزار سال و چیزی کم زیاده میدانند- و این حقایق علوم و دقائق فهم، که در طوایف عالم مشهور و مذکورست، از تاریخ افکار مردم هفت هزار می شمردند- بنا بران خاطر فیاض برآن شده که این کتاب را، که متضمن بیان کهنگی عالم و عالمیانست بل منید قدم جهان و جهانیان، بزبان زود فهم ترجمه کرده آید تا این گروه مرقوم بقدر متعجب گشته ازین عقیدۀ ناپسندیده باز آیند و معلوم گردد که لطایف علوم و شرایط فهم را نیز سری پیدا نیست و این جواهر زواهر دانش را ابتدائی نه. ایضاً خواطر جمهور انام علی الخصوص سلاطین عظام را باستماع تواریخ میل تمام است، چه حکمت شامله الهی علم تاریخ را، که موجب عبوت اهل خبرست است، بر دلها محبوب گردانیده تا از گذشتها هندی گرفته زمان حال را غنیمت شمرده اوقات گرामी را در موضوعات الهی صرف نمایند.

لهذا ملوک باستماع احوال گذشتگان از هم محتاج تر باشند، بنابراین ضمیر دانش پناه را در ترجمه این کتاب، که مشتمل بر

these seven thousand people.(?) The generous mind (of the king) decided, therefore, to bring about a translation of this work, as it establishes the more ancient character of the world and its inhabitants, with a view to warning these men to abstain from such absurd beliefs and to show to them that the finest of learning and the noblest of ideas have no secret which is divulged, and that one cannot find an exact beginning of these lustrous pearls. Furthermore (it has been observed), minds of human beings, especially those of great monarchs, have great inclination towards history, for it is God's world-encompassing wisdom that has made most beloved history, which is the means of warning those who care. History lays bare, before its readers, incidents of importance from the lives of the ancients with a view to prepare them for such contingencies, and to enable them to avail of the good opportunities of life and engage themselves in matters that are a source of divine pleasure. It is on account of this character of history that kings more than other people are in need of it. The king's attention is, therefore, naturally attracted by this work. A group of learned men conversant with the language, who are characterised by abundance of wisdom and religiosity and are away from partiality and prejudice and nearer unto justice and fairness, assembled together and translated the above work, after considerable deliberation and contemplation, in clear and familiar words. Groups of men, considering it as a blessing, had copies taken of the work, which they carried far and wide. The humblest of the servants of the Court, Abu'l-Faḍl bin Muḥarik bin al-Khidr.....was ordered to write a Preface to this translation"²²...

After this Abu'l-Faḍl gives a general sketch of the Hindū system of Cosmogony and of the contents of the book.

The chief persons who took part in this 'Imperial Version' have been already mentioned above. We would, nevertheless, give a brief account of them below.

1. The most important is certainly the historian Mullā 'Abdu'l-Qādir Badā'ūnī, who is already well-known to the students of Indian history^{22a}.

²² I have tried to give more or less a fair and free translation of the original Persian.

^{22a} For a detailed account of Badā'ūnī, please see Āzād, M.H., *Darbār-i-Akbarī*, Lahore 1939; J. J. Modi, article in the *ABORI*, 6, 97-98; *Ency. of Islam*, I; etc.

THE ILLUSTRATED EDITION OF THE RAZM NAMA
(Persian Version of the Mahābhārata)
At Akbar's Court

By

M. A. CHAGHATAI

Ever since the establishment of the Abbasid Caliphate in A. D. 749, Muslims have taken interest in Indian classics. To this interest we owe the first Arabic translation of the Mahābhārata by Abu Salih b. Shua'ib b. Jami',¹ and translations or adaptations of the Mahābhārata and other Sanskrit and Hindu works in the succeeding period.² But the greatest attempt at the understanding of Hindu culture was made by Akbar, as is well-known.

Abu'l-Fazl³ says that "the Mahābhārata, which ranks among the ancient books of the Hindus has likewise been translated, from Hindi into Persian under the superintendence of Naqib Khan, Maulana Abdul Qadir Badāyuni⁴ and Shaikh Sultan

¹ Mujmal'u'-Tawarikh wal-Qisas, ed. by Maliku'sh-Shu'rā Bahār, Tehran, 1318, 106-24.

Abu'l-Hasan Ali b. Muhamad al-Halabi, the librarian of the library at Jurjan, translated the Arabic version of Abu Salih b. Shuaib into Persian in A. H. 417 A. D. 1026 which was used by the author of the Mujmal in A. H. 520. A. D. 1125, Elliot-Dowson, 1.100-1.

R. G. Harshe, Arabic Version of the Mahābhārata Legend, BDCRI 2.314-24.

² Tara Chand, Influence of Islam on Indian Culture, Allahabad, 1936, 214. Nāsir Shah of Bengal got it translated 1325 A. H. and just after it another translations of the same was made in the period of Husain Shah, the successor of Nasir Shah by Kavindra Paraseshwar.

³ Ain-i-Akbari, Calcutta, 1872, 1.103-5.

⁴ According to Badāyuni the translation was undertaken in 990 A. H. Abu'l-Fazl wrote an introduction to the Persian translation in 995 A. H. and his elder brother Faizi turned it into elegant prose and poetical version in 997 A. H. It has been discussed by Jiwaji Jamshedji Modi in his article "King Akbar and the Persian translation of Sanskrit Books," ABORI 4.83-107. Memoirs of Jahangir (Ed. and Trans. by Rogers and Beveridge) 1.264-5.

Thānesari⁵. The book contains one hundred thousand verses. His Majesty calls this ancient history 'Razm Nama' the 'Book of Wars'. Mulla Abdul Qadir Badāyuni, one of the collaborators of the Persian version, calls it "a gist or adaptation" and gives an account of this attempt of Akbar in his *Muntakhabu't-Tawarikh*⁶.

To understand Hindu culture, Akbar not only got the Mahābhārata translated or adapted in Persian but got it illustrated also by his court-artists. It is the aim of this paper to study these illustrations and to show how Akbar sought the inspiration of his entire court in this work.

Muslim artists and calligraphists in mutual collaboration began to prepare illuminated Mss. of the holy Quran and illustrated editions of literary productions from the 2nd century of Islam⁷ onwards, although religious scruples were a great impediment in the representation of animated figures. References to these early Muslim artists and their works are available,⁸ but unfortunately specimens of several of them have been lost through the ravages of time. However, the best and the earliest extant specimen of an illuminated manuscript of the Quran is dated A. H. 427 A. D. 1036⁹ which can be regarded as a genuine representation of the art of Muslim decoration and illumination. The Indian fables of *Bid pai* or the book of Kalila and Dimna¹⁰ is among the

⁵ Badāyuni, Mulla Abdul Qadir, *Muntakhabu't-Tawarikh*, 3,444.

Ibid. II, text 319. Trans. II,186.329.

Darbar-i-Akbari, 450 ; *Ain-i-Akbari*, 105.

Katha Sarit Sagara, India Office Catalogue of Persian manuscripts 1987 and Woolner Commemoration Volume ; C. A. Storey, 'Abd Al-Qadir Badauni and the Katha Sarit Sagara, 249-50 ; Badāyuni Trans. 2,401-2, 415-6.

Tabaqat-i-Akbari, 2, text 467.

Badāyuni, 3 (Trans.) 115-6, 173-4.

⁶ *Ibid.* text, 2,319-21, Trans. by Low, 2, 329-30.

⁷ Ibn Nadim, *Kitabu'l-Fihrist*, Cairo, 24.

⁸ *Ibid.*

⁹ Pope, Arthur Upham, *Survey of Persian Art*, Oxford, 1939. Plate 926. "Decorative page from a Quran" written by Abu'l-Qasim Sa'id ibn Ibrahim, Alam Ibrahim ibn Selih al Mudhahheb in Jumada I, year 427 A. H. (March 1036). British Museum.

¹⁰ *Encyclopaedia of Islam* under Kalila Wa Dimna.

first illustrated books at the court of the Abbasid Caliphs of Baghdad. The earliest extant manuscript of it with miniatures was prepared at Baghdad.¹¹

In India we find traces of indigenous art and literature in ancient frescoe-paintings and on palm leaf manuscripts, but we do not find any trace of miniature-painting patronized by the Muslims before the days of the Mughals.

The introduction of the Mughal school of miniature-painting in India was due to Humayun. What had happened was this :—Only a few years before, a great upheaval had taken place in Persia and Central Asia by the death of Sultan Husain Mirza Baiqrā of Herat in 1506, which meant the end of the Timuride dynasty and all patronage of the learned. The many artists and literati at his court whose masterpieces were the mainstay of the mediæval Persian culture had now to seek refuge elsewhere.¹² Bihzad and a few others were taken over by Isma'il Safawi to Isfahan.¹³ Others sought refuge with Humayun at Kabul before his return to India and were brought by him to India. Two of them Khawaja Abdu's-Samad and Mir Sayyid Ali Tabrizi deserve special mention, for they were mostly responsible for introducing the Indo-Persian style of Painting into India and trained Indian artists on the same line and technique.

Babur and Humayun had very little opportunity in India to look to cultural activities. However, it is certain that Humayun had initiated the idea of illustrating the Romance of Amir Hamza.¹⁴ After his death Akbar began to patronize literary and artistic pursuits and encouraged their development on very scientific lines. For this he utilised the services of the two above-noted Persian artists and established a Department of Painting at his court ; according to the *Ain-i-Akbari*,¹⁵

¹¹ Buchthal, Hugo, Indian Fables in Islamic Art, the Journal of the Royal Asiatic Society, London, pt. 4, 1941, 317-24.

¹² Latā'if Nāma-i-Fakhri of Mulla Ali Sher Nawai, Oriental College Magazine, Lahore, Series, ed. by Sayyid Abdulla, 1932.

¹³ Chaghatai, M. A. "Ustad Kamu'd-Din Bihzad," "Kerwan Annual 1932", pp. 277, 292.

¹⁴ Oriental College Magazine, M. Muhammad Shafi, "Qissa-i-Amin Hamza," Lahore, Nov. 1925, Feb. 1926.

¹⁵ Eng. Trans. by Blochmann, 107.

Akbar himself used to take a keen interest in art and thus enabled the artists to produce good work, which matched that of Bihzad and other renowned artists of the world. The number of artists was very large, of whom many had already attained fame. The artists worked in one hall engaged in their respective duties. The following books were illustrated by these artists as mentioned in the *Ain-i-Akbari*.¹⁶

1. The story of Hamza in twelve volumes.
2. The Changez Nama.
3. The Zafar Nama.
4. The Akbar Nama.
5. The Razm Nama (Mahābhārata).
6. The Rāmāyana.
7. The Nal Daman.
8. The Kalila wa Dimna.
9. The 'Iyār-i-Dānish.

We are, here, mainly concerned with the miniatures of the *Razm Nama*. A list of other illustrated works of this type as found in different collections and not noted in any history is here given¹⁷ because all these were jointly executed by the court-artists, a vast majority of whom must have shared in illustrating the *Razm Nama*.

Abu'l-Fazl has named only seventeen artists in his *Ain-i-Akbari* although there were hundreds of them according to him. Proof of their existence at Akbar's court is also available from their signatures as found on their own master-pieces. The seventeen artists mentioned in the *Ain-i-Akbari*¹⁸ are :—

- (1) Mir Sayyid Ali of Tabrez. (2) Khawja Abdu's-Samad.
- (3) Jaswanth. (4) Basawan. (5) Kesu. (6) Lal. (7) Mukand.
- (8) Maskin. (9) Farrukh, the Qalmaq. (10) Madhu. (11) Jagan.
- (12) Mahesh. (13) Khem Karav. (14) Tara. (15) Sanwala. (16) Harbans and (17) Ram.

¹⁶ *Ibid.* 108.

¹⁷ See Appendix A.

¹⁸ Eng. Trans. 108.

The account of the first two artists is given below from the *Ain-i-Akbari* and other sources.

1. Mir Sayyid Ali was a Tabrezi¹⁹. His father Mir Mussawar, a native of Tirmiz, is well-known as a master in the art of painting which he had inherited from his forefathers. In A. H. 956 (A. D. 1549) having reached Kabul, he got into the service of Humayun, who had a great appreciation of his art. He had the title of Nadiru'l-Mulk, which was bestowed upon him by Humayun. He, however, preferred to be known as '*Humayun Shahi*'. He received the favour of Akbar, with whom he continued in service. The author of the *Nafaisu'l-Maathir* writing in A. H. 979 (A. D. 1571) says 'He is busy in the royal library with the illustration of Amir Hamza'.

2. Khwaja Abdu's-Samad²⁰ was a Shirazi. His father Nizamu'l-Mulk was the wazir of Shah Shuja of Shiraz. Before Humayun left Iran, he went to Tabrez where Abdu's-Samad paid him his respects. He was even at that time known as a painter and calligraphist. He was also called Shirin Qalam (Sweet Pen). Humayun invited him to come to India, and though then unable to accompany him, he followed him in 956 to Kabul and entered his service. Under Akbar, he was a commander of four hundred but low as his mansib was, he had great influence at court.

Abu'l-Fazl²¹ has also given a brief account of Jaswanth and Basawan whose names very frequently occur on the miniatures of the *Razm Nama*. They apparently belonged to the old stock of Indian artists, already working here on indigenous lines of frescoes as the words of Abu'l-Fazl, quoted below, indicate :—

“Daswanth is the son of a *palki*-bearer. He devoted his whole life to art, and from love of his profession used to draw and paint

¹⁹ *Ibid.*, 107; *Nafaisu'l-Maathiri* quoted by M. Shafi *vide supra*; Shahid-i-Sadiq of Muhammad Sadiq Ms. British Museum (Egerton 1016), 77.

The work of Mir Sayyid Ali's father with the note 'Drawn by Mir Musawwar' is reproduced in the Survey of Persian Art, Pl. 901. Abu'l-Fazl has give (AA P Text, 254) his name as Mir Mansur which is not correct. Mir Sayyid Ali made a portrait of his father (in the Louvre, Paris) representing him as he was (i.e. very old) to accompany the latter's petition requesting for permission to retire from service on account of old age, Miniatures Indiennes du Musée du Louvre, Paris, 1929, p. 11-2.

²⁰ *Badāyuni*, 3.310.

²¹ *Ain-i-Akbari*, 108.

figures even on the walls. One day, His Majesty saw him, discovered his talents and handed him over to the Khwaja. In a short time, he surpassed other painters. Unfortunately, he became mad and committed suicide. He has left many master-pieces."

In back-grounding, drawing of features, distribution of colours, portrait-painting and several other branches, Baswan excells so much that some critics prefer him to Daswanth.

The Royal copy of the *Razm Nama* contains more miniatures than any other illustrated work of Akbar's period, with the exception of the Romance of Amir Hamza which was prepared in the very early years of Akbar's reign. Other illustrated copies of the *Razm Nama* were ordered by the courtiers of Akbar (some of them have been referred to here) but many of them have not so far come to light. It is certain that all these copies of the *Razm Nama* were prepared by a vast number of artists of Akbar's period.

In view of the above account of the artists and the illustrated works prepared at Akbar's court by them it would be useful to give the names of the artists in alphabetical order²² and references to the works or copies in which their signed miniatures are found.

Fortunately one Ms. (App. B. No. 1) belonging to the Imperial Library of Akbar is preserved in the Pothi Khana (State Library) of Jaipore State. Dr. Col. H. T. HENDLEY has already published from this unique Ms. 148 miniatures out of 165 in addition to the last page of the colophon with many autographs and seals which is reproduced (Fig. 1) here. He has also written a useful introduction to it dealing with the story of the epic as based on this Persian text.

The colophon described below will help to explain the procedure of the royal library of Akbar especially because of the entries made by the persons in charge of the Library and the seals of other officials holding the portfolio of Libraries. Moreover, all these endorsements which range from Akbar's period down to the period of Shah' Alam A. H. 1118 (A. D. 1707), show that the Ms. had been in constant use at the courts of the Mughal monarchs.

²² See Nos. I and H in Appendix A.

Though it is not dated, yet the date, which can be inferred from the earliest autographs of librarians in-charge, is the 24th of the month of Ardi Bibisht, 40th regnal year of Akbar i. e. A. H. 1004 (A. D. 1595), which means that this royal copy was in existence before being taken in charge of by the librarian.

The calligraphist has put his name in two converging lines thus—

باهتمام مرید در چهار مرتبه اخلاص
پای برجای شریف عبدالصمد صورت اتمام پذیرفت

"completed under the management of Sharif (son of) Abu's-Samad, who being a disciple in four stages of purity²³ is firm in the Din-i-Ilahi --(Divine Faith)."

Muhammad Sharif, the organiser of this Ms. was the son of Khwaja Abdu's-Samad, who in his youth was trained under the eye of Khalifa-i-Ilahi (Akbar). He was a poet having the *nom-de-plume* Fārsī. He excelled in calligraphy and painting. Further details regarding both Sharif and his father Abdu's-Samad are given below in the account of paintings. Sharif's signature also appears on plates CI and CV of the *Razm Nama* of Jaipore as a collaborator with Bhura and Banwari. Under Jahangir, he was raised to a higher status and received the title of Amiru'l-Umara, which also appears on one of his miniatures, namely a portrait of Jahangir. The Seals read as follows :—

محب علی بندہ اکبر شاه 24

'Muhibbi Ali, servant of King Akbar'. There were many persons of this name during Akbar's period, but there was one Muhibbi

²³ Abu'l-Fazl, Makatib, Lucknow, 1893, p. 227.

Sh. Abu'l-Fazl has explained these four stages of purity of the Disciples thus : Jan (life), Māl (wealth) Nāmus (dignity) and Din (religion). He has dealt with this point in the course of his commentary on the Adāb-u'l-Muridin of Shaikh Sharf u'd-din Munyari. Kh. Badur Prof. S. A. K. Sarfarāz kindly directed me to this reference and K. B. Prof. M. M. Shafi directed me to Bodyuni 2. 304.

Tabaqat-i-Akbari, 2.512; Memoirs of Jahangir, 2.14.5.

²⁴ BM. OR. 1854, 929.

Ali, father of Inayatu' Allah. The latter had composed a history of Akbar's later period under the name of *Takmila-i-Akbar Nama* or (supplement to *Akbar Nama*.)

فتح الله ابو الفتح 25.

'Fatullah son of Abu'l-Fath' was one of the courtiers of Akbar i.e. the son of Hakim Abu'l-Fath. He was killed by Jahangir on account of his being an accomplice of Khusraw.

آقا ملا بدیع الزمان 3.

'Aga Mulla Badi'u'z-Zaman'.²⁶ The seal is a fine tughra in an elliptical form. This Aga Mulla Badi'uz Zaman was the son of Aga Mulla Dawatdar and the paternal uncle of Mumtaz Mahal, the wife of Shah Jahan.

عبدالحق ابن قاسم شیرازی 4.

'Abdul Haq son of Qasim Shirāzi'²⁷ is inscribed in a very fine round tughra. This Abdul Haq was a great calligraphist of the reigns of Jahangir and Shah Jahan. Jahangir employed him in the transcription of the inscriptions of Akbar's mausoleum at Agra since his name (as found in this seal) appears there both on the front and back facades of the gateway of the mausoleum. During the period of Shah Jahan also, he was engaged on the inscriptions of the Taj. His title 'Amanat Khan' is found inscribed on the dome of the Taj.

بندۂ شاه جهان صادق خان 5.

'Sadiq Khan, the servant of Shahjahan'.²⁸ There were many other 'Sadiq Khans' but this presumably is Muhammad Sadique who had

²⁵ *Memoirs of Jahangir*, Eng. Transl. 122-3.

²⁶ *Ain-i-Akbari*, I. Transl. 369.

²⁷ Chaghatai, M.A., *Taj Mahal*, Bruxelles, 1938, 129-30. *Mathur-ul-Umara*, 2.790-2.

Muraqqa-i-Akbarabad, Saeed Ahmad Marahrawi, Agra, 1931. 120.

²⁸ *BM. Or.* 814, *Bm. Or.* 1617. *Elliot Dowson*, VII. 133.

composed a history of Shah Jahan's reign and was given the title of 'Sadiq Khan' by Shah Jahan. He held the office of Waqa-Navis in Agra.

6. ارشد خان خانم زاد شاه عالم بادشاه غازی

'Arshad Khan, the child of a slave or born in the family of Shah 'Alam Badshah Ghazi'.²⁹ He was the Diwan of the Deccan and was the grand-son of Arshad Khan who was the Diwan of Kabul during the reign of Aurangzeb.

The remaining four seals are not clear.

Endorsements or autographs by the in-charges of the Library :—

I. بتاریخ ۲۴ ماه اردی بهشت الهی سن ۴۰ در بلده لکھنو
عرض دیده شد

Presented for perusal on the 24th of the month of Ardi Bihisht Ilāhi year 40 (A.D. 1595) at the city of Lucknow.

II. بتاریخ ۱۵ امرداد سن ۴۲ عرض دیده شد در تحویل بهادر
چپلم نموده شد

Presented for perusal on the 15th of Amardad, year 42 (A. D. 1597) and entrusted to the charge of Bahadur Chela.

III. الله اکبر۔ در تحویل خواجہ عنایت اللہ بتاریخ ۱۹ اردی
بهشت سن ۴۳ عرض دیده شد

Allah is Great : In the custody of Khwaja Inayatullah. Presented for perusal on the 19th of Ardi Bihisht, year 43.

IV. الله اکبر۔ بتاریخ پنجم امرداد ماه الهی بتحویل بهادر کتابدار از
تحویل خواجہ عنایت اللہ

Allah is Great : On the 5th of Amardad, Khwaja Inayatullah gave it in the charge of Bahadur,³⁰ the librarian.

²⁹ Muntakhabu'l-Lab'ib, 2.613; Maathiru'l-Umara, 1.290.

³⁰ Maathir-i-Rohini, 3.1378.

الله اکبر- بهاریخ غره خورداد سنم ۱ حد از تحویل خواجہ
عزایت الله به تحویل خواجہ عبیر شد

Allah is Great : On the 1st of Khurdad, year 1st (of Jahangir's reign 1014 A. H. A.D. 1595) Khwaja Daulat³¹ gave it into the custody of Khwaja Abir.

الله اکبر- بهاریخ ۲۰ ماه شهر یور الهی سنم ۷ بهار
وجوه تحویل محمد یوسف به تحویل حبیب الله شد

Allah is Great : On 20th Sharwar Ilāhi, year 7th (A.D. 1613). It is transferred from the custody of Muhammad Yusuf,³² to that of Habibullah.

VII. از وجوه به تحویل حبیب الله به تحویل محمد مومن شد

Allah is Great : On 19th Azar, year 8 (A.D. 1614) presented for perusal.

VIII. بهاریخ ۱۱ ماه آذر الهی سنم ۱۵ از تحویل ملا صالح
به تحویل ملا لیمان شد

On the 11th of the month of Azar (Ilāhi), year 15th (A.D. 1620) Mullah Salih³³ gave it into the custody of Mulla Luqman.

IX. بهاریخ ۲۱ دی الهی سنم دیده شد

On 21st Dai, year 17th (A.D. 1622) examined.

X. ۳ آذر در سنم احد عرض دیده شد

3rd Azar, year 1st (evidently of the reign of Shah 'Alam 1118 A. H. 1707 A.D.).

³¹ Ba 'ayuni, 2.100, text ; 2.97.

³² Badshah Nama of Mulla Abdul Hamid Lahori, 1.543.

³³ Maathir-i-Rohini, 3.1680.

The 'Estimate' or statement of cost of the manuscript noted below is entered at the bottom of the colophon. [This was very kindly deciphered by Khan Bahadur Prof. M. Muhammad Shafi, Panjab University, to whom we are very grateful.]

الله اکبر

برآورد

زمرتماره ۴۰۲۴ روپيه

تصويرات	(۱) خط عدايت الله
۱۶۵ صفحه	۶۵ — ۶
۳۶۰۲ روپيه	۳۲۵ روپيه
جلد واپره و دهالي	(۲) کاغذ
۳۲ روپيه	۱۴ دستچ
سونش	۲۴ روپيه
نقشه فرنگ	(۳) لوح و جدول
۱۳ تولچه ۱۵ ماشه	۲۷ روپيه
۱۴ روپيه	۴ پوست آهو
	۱۶۵ فرد

Translation.

Allah is Great

"Estimate"

Total Cost Rupees 4,024

(a) Calligraphy by Inayat Ullah

65 — ۶

Rs. 325 —

Miniature.

165 pages.

Rs. 3,602 —

(b) Paper :—

14 Quires ?

Rs. 24 —

(c) Opening panel and page-margins

Rs. 27 —

Binding, marble, paper, etc.

Rs. 32 —

Filings (Powder)

European Silver

13 tolas, 15 mashas

Rs. 14 —

(d) Deer Skin

165 pieces.

The writer had the opportunity to come across two other manuscripts of the *Razm Nama* which belong to the reign of Akbar (Appendix B, Nos. 2 and 3). Perhaps they are copies of the same prepared for the nobles of Akbar's court in compliance with his command.³⁴ The first copy made by an illustrious calligraphist Mulla Pir Muhammad³⁵ son of Muhammad Hafiz, bears eighty-four full-page miniatures³⁶ and the other copy (discussed hereafter) is the one in the Baroda State Museum.

Akbar's great enthusiasm for the Mahābhārata does not seem to have come to an end with the preparation of these manuscripts because immediately afterwards Tahir Muhammad 'Imadu'd Din Sabzwari³⁷ prepared an abridgement of this Persian version of the Mahābhārata in 1011 A.H. (A.D. 1602) as mentioned in the introduction (Appendix B, Nos. 13, 4. p. 4, 25.41.64.66). It also contains a Table of contents for all the 18 Parvans. The description of the manuscript (Appendix B No. 35) of the *Razm Nama* as given by the Berlin Library includes the enumeration of the slokas in each parvan which more or less agrees with that noted in the work of Tahir Muhammad. The enumeration of slokas in the 18 parvans according to the two Persian versions of the Epic—original and abridged—side by side with that in the Sanskrit version, in the form of Appendix (B).

³⁴ Badayuni, op. cit., 2319-21.

³⁵ Ain-i-Akbari, 101.

³⁶ Chaghatai, M. A., 'Risala Intikhab,' Chand Qalmi.

³⁷ Details of the life of Tahir Muhammad are given in his own work *Ris'latu't Taherin*, BM. OR. 168, OR. 1762, fol. 188 b. Add. 8893; *Ath'ru s-Sanadid* of Sir Sayyid Ahmad Khan Insc. No. 3. On the Tomb of Amir Khusrau in which the name of Tahir Muhammad is prescribed; Proceedings of the Indian History Congress, Third Session, Calcutta, Dr. Tara Chand's Presidential Address to the Mughal Period Section, 914.

Tahir Muhammad states in the introduction to his abridgment that he has described all these eighteen parvans along with the Harivaṃśa Parvan (or Khatima divided into eighteen fasls—chapters and Khatima—epilogue).

When we study the Mss. of the Razm Nama in various collections, we come across several differences and variations. Appendix C will help those who wish to make a comparative study of the Persian version. Almost each Ms. varies from the other in some respects. From the dates of their transcription hardly four of these can claim to be of Akbar's period, Nos. 23 and 41 seem to be of Shah Jahan's reign and the rest are almost of the 18th and 19th centuries.

As mentioned above, the Imperial Library Ms. of the Razm Nama, is preserved at Jaipur. It contains 165 full-page miniatures. The writer could not get the opportunity to study the original Ms., therefore the present remarks are based on HENDLEY's edition of 1884. Almost every miniature bears the names of two artists who have worked in collaboration (see Appendix C). They have tried to illustrate almost every prominent aspect of the epic.

The second contemporary Ms. is dated 1014 A.H. (1605 A.D.) (App. C, No. 2). Some years back, we saw this Ms. in the custody of a dealer who very kindly allowed us to study the Ms. and gave photographs of some miniatures. They are gratefully reproduced here (Plates 1—9). Eighty-four of these miniatures are signed by the artists (as shown in App. A. 3). The face of every figure is drawn in profile which is characteristic. The figures however do not look defective from an artistic point of view (Plates I, II, IV, VIII IX).

The third Ms. of a contemporaneous nature is in the Baroda State Museum. It is rather difficult to make sure whether the thirty-one miniatures³⁸ in the Museum representing the scenes of the Mahābhārata and framed as gallery pictures actually belong to the Persian text of the Razm Nama lying in the Museum. The only clues are the common Naskhi characters and their size. It seems that some

³⁸ Razm Nama from Akbar's Times 'Indian Art and Letters' 12.2.90-2. 1938. Dr. Col. Wiener gave some illustrations out of them but he could not trace that 2 vols. of the actual Ms. were already lying in the Museum as no reference is found in his note.

dealer, who had the complete copy sold out the miniatures in different lots to different customers. Fifteen of them are in the Prince of Wales Museum, Bombay, out of which 12 belong to Sir Akbar Hydari's collection. Thirteen are with Maggs. Bros., London,³⁹ and six out of them have been reproduced in their catalogue. Similarly two are with Edward Gladstone, Ltd., London,⁴⁰ and one in the Museum of Boston. The rest may be in some other collections which we do not know. Nearly every miniature is signed by a court artist of Akbar. The Naskhi style of writing and figures in the miniatures are distinct enough to differentiate it from the above two.

Some scattered miniatures of the Razm Nama are found in the art gallery of Lahore Central Museum and are perhaps of Jahangir's period. Similarly some miniatures of a very high order are in the possession of Mr. Justice R. B. Becket,⁴¹ I.C.S. They are also of Jahangir's period as they bear the date A. H. 1025 (A.D. 1616) and the signatures of the two artists, Abdulla and Fazl, as shown in the list of artists. It seems that some Mss. of the Razm Nama were either newly prepared in Jahangir's reign or those which were already undertaken by the artists in Akbar's reign were then completed. However, it must be admitted that Jahangir's Memoirs do not refer to any work on the Razm Nama.

Akbar's personal interest in the department of painting is testified⁴² by the miniatures of the Mahābhārata and other works. The two Masters, Mir Sayyid Ali Tabrizi and Kh. Abdus Samad, were appointed to control this department which unfortunately did not retain the same efficiency after Akbar's death, because after him no such departmental collaboration is traceable in the work of the court-artist. This tradition of Mughal art was continued up to Shahjahan's period only. Then came a decline.

³⁹ Biblioteca Asiatica, No. 452, 1924. item 252, pp. 99-100 and six illustrations.

⁴⁰ An Illustrated Catalogue of Persian and Indo-Persian Works of Art, 1931, 14, items 43-44.

⁴¹ Islamic Culture, Hyderabad Deccan, 1939, 500, Proceedings of the Lahore Art Circle.

⁴² *Vide supra* Abu'l-Fazl's remarks in Ain-i-Akbari.

The system of collaboration and division of work organized by Akbar as gathered from a study of the miniatures, is given below :—

طراحی	Sketching (which was generally done by the chief artist).
چهره کشائی	Drawing the faces or painting of faces.
رنگ آمیزی	Colouring.
مانند نگاری	Taking likeness.
چهره نمائی	Portrait painting or featuring.
عمل	'Work'—a compendious term.

Almost every picture bears two and occasionally three names of artists with the above assignments of work as joint-producers. A few instances are noted below

1. طرح تلسی عمل باندی چهره نمائی مادھو خورد

Sketch by Tulsi, work by Bandi and featuring by Madhu, the younger. [For a description of the same see Lawrence Binyon.]⁴³

2. عمل بشنداس چهره نمائی نانہا

Bishandas made the original sketch and Nana painted the faces.⁴⁴

3. طرح تلسی رنگ آمیزی تلسی خورد

Tulsi made the outline and Tulsi, the younger, coloured the rest.⁴⁵

The first Tulsi here must be a different man from the second who is called Tulsi, the younger.

4. Sometimes teacher and pupil used to collaborate with each other. One such study, signed by Bihzad and corrected by his father Khwaja Abdu's-Samad,⁴⁶ is found.

عمل بہزاد اصلاح خواجہ عبدالصمد

⁴³ Lawrence Binyon, *The Court Painters of the Great Mughals with Historical Introduction* by T. W. Arnold, London, 1921, Plate IX. This illustration is from the Akbar Nama in which Akbar is shown inspecting the building of the city of Fatepur Sikri, 70.

⁴⁴ Ibid., Plate IV.

⁴⁵ Razm Nama Jeypore), Plate 13.

⁴⁶ Darab Nama, BM. Or. 6415, Fol. 103.

The list of artists will further show that Akbar had engaged artists almost from all the chief cultural centres of India such as the Gujarati and Kashmiri centres among others. The artists from Gujarat at Akbar's court had kept up their tradition of contributing something towards the art of painting. As regards Kashmir, as it is just on the border of Central Asia it could easily assimilate the influence of its Persian neighbours and could produce great masters.

In some cases we find that artists having special qualifications for the work of embellishing and decorating the margins of the large size miniatures, were appointed by Jahangir. Such a study (App. A. No. 24) is found signed by Harif and one Mulla Muhammad Amin who was in the service of Abdur Rahim Khan Khanan for decorating margins,⁴⁷ while the original paintings were done by different artists.

Some new artists who came to Jahangir's court from Persia were honoured by him and given special titles for their eminence in the art of painting such as Naduu'l-Asar for Mansur and Nadir u' Zaman for Abu'l -Hasan titles which were not current in the days of Akbar. These artists collaborated with the old artists of Akbar's court. Therefore some artists of Jahangir and Shahajahan's period are also included in the list (App. A). Jahangir through these artists got special albums of miniatures prepared. Bishendans, one of the old painters of Akbar's reign who held a position of great honour at Jahangir's court was specially deputed by him to accompany Khan-i-Alam to Iran to have the portrait of Shah Abbas⁴⁸ of Persia. Mansur evidently started his career under Akbar, as one study of his in collaboration with the great master Basawan is found in Akbar Nama at the Victoria Albert Museum (App. A, No. 15) and became a great artist under Jahangir who honoured him with the title of Nadiru'l-Asr.

The list of artists appended here shows us that some signatures from the illustrations of the Razm Nama are confusing. Sometimes, the diminutives only by which these artists were better known; sometimes only a part of their names and sometimes their titles (if they

⁴⁷ Maathir-i-Rahimi, 3. 1678.

⁴⁸ Tuzuk-i-Jahangiri, Aligarh, p. 258.

had any) are given. Sir R. Arnold⁴⁹ has very ably studied this important question regarding :—Kesu, Ram, Tara, Riza, Khem, Farrukh, Madu, Bhura, Shankar, Qabul etc. They all appear in this list in their different forms. The following is cited here by way of illustration :—

Kesu (Kalan), the elder	} All these are shown in list No. 2.
Kesu (Khurd), the younger ..	..	..
Kesu Das ..	..	..
Kesu Gujarati ..	..	..
Kesu Kahar—a palki-bearer ..	..	..
Kesu (only) ..	..	..

It is here a problem as to whether they all refer to only one or many persons.

Miskin,⁵⁰ an artist, working on the Razm Nama generally signs his pictures as Miskinā. Sir T. Arnold understands from it that the termination ā shows that he was a man of low status. I, however, think that in its form it is just like the nom-de-plume of a poet with the termination ā. There are other artists such as Paras, Hari, Jaswanth, Mahesh etc. who sometimes sign as Parsā, Haria, Jaswanthā, Maheshā.

Mir Sayyid Ali Tabrazi's signature is found on two pictures of the Razm Nama (Appendix C, No. 2). One of them is reproduced here. But according to the account quoted above from the Nafasu'l-Matthir,⁵¹ he had taken leave for pilgrimage to Mecca between A.H. 972-979. But no contemporary authority testifies to such a pilgrimage. As miniatures bearing his signature appear on a Ms. which is dated A.H. 1014, his work on it must have begun earlier.

The signature of Mirak⁵² is found on one of the miniatures (App. A, No. 3). In the history of Persian miniature-painting one 'Mirak' enjoys a great reputation. There were many artists known by this name or diminutive in Persia but not many in India. Two of them are worthy of mention here. One was the teacher of the great Bihzad, and the other was one of his pupils. In India we have been

⁴⁹ The Library of A Chester Beatty a Catalogue of Indian Miniatures by Sir Thomas Arnold, Revised and edited by J. V. S. Wilkinson, London, 1936, 3 vols. pp. XII.

⁵⁰ *Id.*

⁵¹ *Vide supra*, Fn.

⁵² Chaghatai, M. A, Bihzad, *vide* footnote.

able to trace one Miraka Musawwar, who was also a mystic. Like others he had added this name as an alias to his full name Muhammad Afzal (Muzahbib-gilder of Samarquand).⁵³

Bihzad's name⁵⁴ appears on one of the plates of Smith's History of Fine Arts of India which shows that the 'work is done by Bihzad and corrected by Khwaja Abdu's-Samad'. The latter had two sons viz. Khwaja Muhmad Sharif and Kh. Bihzad. As noted above, it was under the supervision of Khwaja Sharif, that Akbar's copy of the Ms. of the Razm Nama was prepared and he also painted some of its miniatures. The second Bihzad who was still young was apparently learning the art of painting from his father as is manifest from the work referred to here.

The signatures of the following artists sometimes appear with the express mention of their fathers or other relations, who were also artists. It shows that their art was hereditary.

Gowardhan,⁵⁵ the son of Bhawāni Das.

Manohar,⁵⁶ the son of Basawan.

Nand,⁵⁷ the son of Ram Das.

Ali,⁵⁸ the son of Mukhlis.

⁵³ Colophon of a Ms. of the Kashfu'l-Mahjūb in the State Library of Hyderabad Deccan. (Persian Mysticism, No. 398) bears a long statement by him.

⁵⁴ Smith, V. A., A History of Fine Art in India and Ceylon ; Oxford, 1911, p. 453. Abdul Muqradie, Catalogue of the Arabic and Persian Mss. in the Oriental Public Library at Nalipore, Patna, 1921, pp. 40-8. The Description of one unique Ms. of the Tarikh-i-Khandan-i-Tunuruyal which is illustrated at Akbar's court by his court artists. It contains one plate No. 38 by Bihzad.

⁵⁵ A Chester Beatty, *op. cit.*, XII?

⁵⁶ The colophon of a Ms. of the Gulstan of Sa'di in the Royal Asiatic Society, No. 258, bears a miniature in which one artist is portraying portrait of one savant sitting before him as a model. The piece of paper in the hand of the artist bears 'work of Manohar son of Baswan and the learned man who is sitting in front of him also holds a paper on which it is written

Portrait of Husain Zarrin Raqu. This Ms. is calligraphed by Muhammad Husain al-Kashmiri during the year 990 at the city of Fathpur.

⁵⁷ Akbar Nama, Victoria Albert Museum No 64.

⁵⁸ Tarikh-i-Timuriyah, *vide fn.* plate 51.

Mukbir,⁵⁹ the son of Bichitr.

'Ābid,⁶⁰ was the b. of Abu'l-Hasan.

'Āsi,⁶¹ the brother of Miskina.

Mahābhārata explained through Pictures.—After a careful study of the Persian text of the Razm Nama and some of the Persian legends on the miniatures composed by some contemporary hand, Dr. Hendley has added brief descriptive notes under each miniature. These notes deal more with the story of the epic depicted therein than with the art of painting embodied in these miniatures. One can easily follow the original story as depicted in the Persian text through these notes which do the same service to the miniatures of other Mss. of the Razm Nama. The artist could treat a theme according to his own imagination, but the themes of these miniatures as given in Akbar's copy of the Razm Nama, could not be altered by him.

The Miniatures of Razm Nama as a Picture of Contemporary Life.—In a general sense the Mahābhārata may be called the history of the ancient kings of India, and in a particular sense, a history of the great war between two branches of one family, the Pāṇḍavas and Kauravas. As the court artists of Akbar were not acquainted with the conditions of the time of the Mahābhārata war, they naturally sought inspiration from their own environments and their own tradition of the art of illustration.

If painting has any value as a material for contemporary history, then the illustrations of the Razm Nama can claim to be a faithful picture of the India of Akbar's time, in many respects. Though many illustrated works were made at Akbar's court, yet not one of them was so comprehensive as the Razm Nama. Illustrated editions of other works (each of them), embodied one particular theme and most of them had non-Indian topics which naturally did not afford much scope to the vast majority of Indian artists for the representation of the India of the age. A few aspects of life as revealed in the illustrations of the Razm Nama are explained below with the help of the miniatures reproduced here.

⁵⁹ Shah Nama Windsor Castle, p. 121.

⁶⁰ Marteux et Vever, *Miniature Persanes*, Paris 1913, p. 161.

⁶¹ Akbar Nama, *op. cit.*, *vide fn.* No. 62.

The love of learning among the priestly class of Indians, their dress and their mode of delivering and listening to sermons is obvious from the first and second plates. These people live like hermits in their huts in jungles. Reverence for religious teachers is shown by giving them higher seats than to their disciples.

Men and women wear their finest dresses on the occasion of marriage ceremonies and court-functions, and wear ornaments studded with jewels and pearls to keep up the traditions and dignity of their families. Every figure in Pl. III which depicts a *svayamvara* ceremony going on inside the enclosure is found wearing a necklace and a fine dress. Following the Mughal court etiquette, they use patka and kamarband or girdle. Processions which form a common feature of all ceremonies and preparations for which are shown as going on outside the enclosure, include elephants and horses gorgeously decorated with ornaments and harnesses, with their bridles held by their attendants in their own respective colours. The trumpeters who are in the forefront of the procession to proclaim victory or royal rejoicings are shown on the top of the miniature. The processions terminate with some sort of feast or refreshments (which is described elsewhere from Plate 88 of the Jaipore Razm Nama).

In Plate V we see the use of a palki for carrying the bride, a practice of Mughal times, probably adopted by the Hindus during Akbar's time.

As regards the pastimes of the princely class of people, the artist has shown them playing at Dice in palaces, the losers being indicated below.

The battle is illustrated by Plates VI, VII, IX. Horses, elephants, bahalis and Rathes or chariots appear as the chief means of war-transport. The chariots have four wheels and the Bahalis only two. At the time of the fight, only the warrior and his driver occupy the Rath with a view (it seems) to avoid disturbance in the course of the action. The rank of the warriors is seen from their respective standards in battle-array.

As regards arms, the arrows and bows were the chief weapons of those days when the enemy was fought at a distance. The finest specimens of arrows are shown in Plate III, by the side of Arjuna during the *Svayamvara*. Princes were specially trained in archery. Many other

miniatures of the Mughal period can testify to this. In close combat, maces (Curz) or swords or daggers of varied types were employed. Plate VII depicts varieties of swords, daggers, etc. Every officer was expected to carry one dagger in his belt. It will not be out of place to mention here that Indian swords were well-known among the Arabs from early times. Many Arab poets of the early days of Islam and even before Islam, have composed verses in praise of Indian swords and arrows.

The following are some of the weapons found in the miniatures :—Maces, Ploughs, Tridents, Swords of various types, Darts, Arrows which produced fire, water, etc. and Nooses.

Plate VIIIa gives us an idea of a Mughal court-scene with its etiquette, although its main theme is different. The courtiers and other attendants properly dressed occupy their seats at the court according to their rank. Any one else who had to appear at the court was also expected to be properly dressed to keep up the dignity of the court. In this Plate Gāndhārī and other ladies who are shown as addressing Bhīṣma are well dressed and wear valuable ornaments. The artist has been influenced by the atmosphere in which he himself had been brought up. It is rather the dignity of the Mughal court with its special treatment of ladies at the courts that is reflected in this figure of Gāndhārī.

In the same Plate (VIIIa) in the forefront of the court, music and dance are going on. This was an important feature of the court of those days, with the Naqqār Khāna in action. Three men on the left make up this Naqqār Khāna ; one is playing on the flute, the second holds the cymbals and the third beats the drums. This Naqqar Khana was generally placed in a canopy of the deohris (porches) which was an annexe of this court, but the artist represents it as an important feature of the court itself.

Almost every miniature reflects the dignity of the court and the distinguished position of its nobility. Shamianahs or umbrellas over the heads of the chiefs was a sign of royal dignity.

Other miniatures of these manuscripts of the Razm Nama similarly give us ample opportunity to study the Mughal customs of those days,

The Miniatures of the Razm Nama from the point of view of Art.—Unlike Western art, the oriental art of painting bears only two dimensions, and therefore raises many problems: such as the faithful expression of the artists' imagination on the surface of the paper; the depicting of the many sides of his imagination on one miniature as an independent chapter or section of the work undertaken; and the dominant presentation of central theme. In spite of these limitations we find that every picture of the Razm Nama is like a chapter of the Mahābhārata, as far as the central idea is concerned. It is often alleged that Oriental artists, particularly those of India, are incapable of keeping in view the principles of perspective and this mars the real value of the picture from an artistic point of view. But when we carefully study the miniatures of the Razm Nama, we find them quite up to the standard, although they may not appeal to modern artists. The artist covers as many aspects of one theme in one picture as he can visualise in his imagination. For instance, plate 88 in which "Yudhishtira, Krishna and Pandavas hold a great feast at Hastinapur before the horse is set at liberty", is the joint work of Daswanth and Bhura. It was natural for the artists to keep in view the Mughal palaces and their celebrations of such royal banquets. The artists first give the outside wall of the palace with a gate through which the guests have to enter. After it the interior of the palace begins where the guests assemble and the adjoining left-end of the palace is reserved for the cooks who are seriously busy in preparing the dishes. Just beyond it, table-covers are arranged whereon guests are dining in rows, just as the Musalmans do. The upper apartment on the left side of the palace are full of women having their separate dining arrangement. It is interesting to note here that guests of the two sexes are being served separately by waiters of the appropriate sex. There is the grandeur of the palace with all its architectural beauty. It will be obvious thus that the artists have covered many aspects in one miniature successfully from the perspective point of view. The same can be seen in the miniatures reproduced here. In Europe only of late one variety of perspective named "Isometric Projection" covers many aspects of the objects to be drawn. The features of the faces and the expressions of our figures also are worthy of study.

Prototypes of these Miniatures.—A casual glance at the miniatures of the Razm Nama may lead to the idea that they belong to some illustrated edition of the Shahnama of Firdousi but a little

observation reveals that they belong to some Indian epic. Here we reproduce only two miniatures, one from the Razm Nama (Plate VIIIa) and the other from the Memoirs of Babur at the Bodleian, Oxford (Fig. 2). The latter represents the rejoicings at the birth of Humayun and is drawn by some Persian artist and the former depicts the scene of the Mahābhārata in which Bhikam (Bhīṣma) is shown at the court and Gāndhārī, the mother of Duryodhana is addressing him. It is signed by Mir Sayyid Ali Tabrazi. If both these miniatures are studied side by side, they appear to be either the work of one artist or the Indian artist has followed the former, as far as the sketching and planning of the theme are concerned. The Indian artist has most successfully put on Indian attires on his figures and the influence of Mughal court-life and atmosphere is obvious. In some cases the architectural details of the building look so realistic as to reproduce the atmosphere of some Mughal monument.

The following were the symbols on the banner of some of the great chiefs⁶².

Bhima	—	A Standard with a lion on the top.
Arjuna	—	A Standard with an ape, the Hanuman.
Duryodhana	—	An elephant.
Karna	—	
Kripa	—	A bull.
Vrishasena	—	A peacock.
Madra	—	Silā.
Jarasandha	—	A bear.
Somadatta	—	The moon.
Pradyumna	—	A Crab.

Finally, we find that the Persian version of the Mahābhārata, prepared at the instance of Akbar enabled the masses to study this epic as a book of general interest. Later on other scholars tried to convert it into elegant prose or verse. One of them Hajji Rabi Anjab's is worthy of mention.⁶³ He was a native of Spain and came to India through Iran

⁶² Hendley, Introduction to the Razm Nama.

⁶³ BM, Egerton, 1036, p. 711.

after staying there for about thirty years, and made a metrical translation of the eighteen parvas of the Mahābhārata.

Apart from it, this Persian version of the Mahābhārata has been used as a source of history by historians for their accounts of ancient India, especially by those who could not utilise the original Sanskrit sources. Among these, Muhammad Qasim Firishta comes first who says in the introduction to his history⁶⁴ that he used the Persian translation of the Mahābhārata made by Akbar's command, as his source for an account of the Hindus and of ancient India. Similarly Sujān Rai did the same in his *Khulasatu'l-Tawarikh*.⁶⁵ Thus, Akbar's interest of Hindu classics gave a great impetus to the study of pure Hindu culture, through the medium of these Persian versions.

⁶⁴ (Bombay Edition). Vol. I, p. 6; Brigg's trans., Vol. I, LIII-LIV,

⁶⁵ Ed. by Zafar Hasan, Delhi, 1918, p. 4.



PLATE 1.



PLATE 2.



PLATE 3.



PLATE 4.

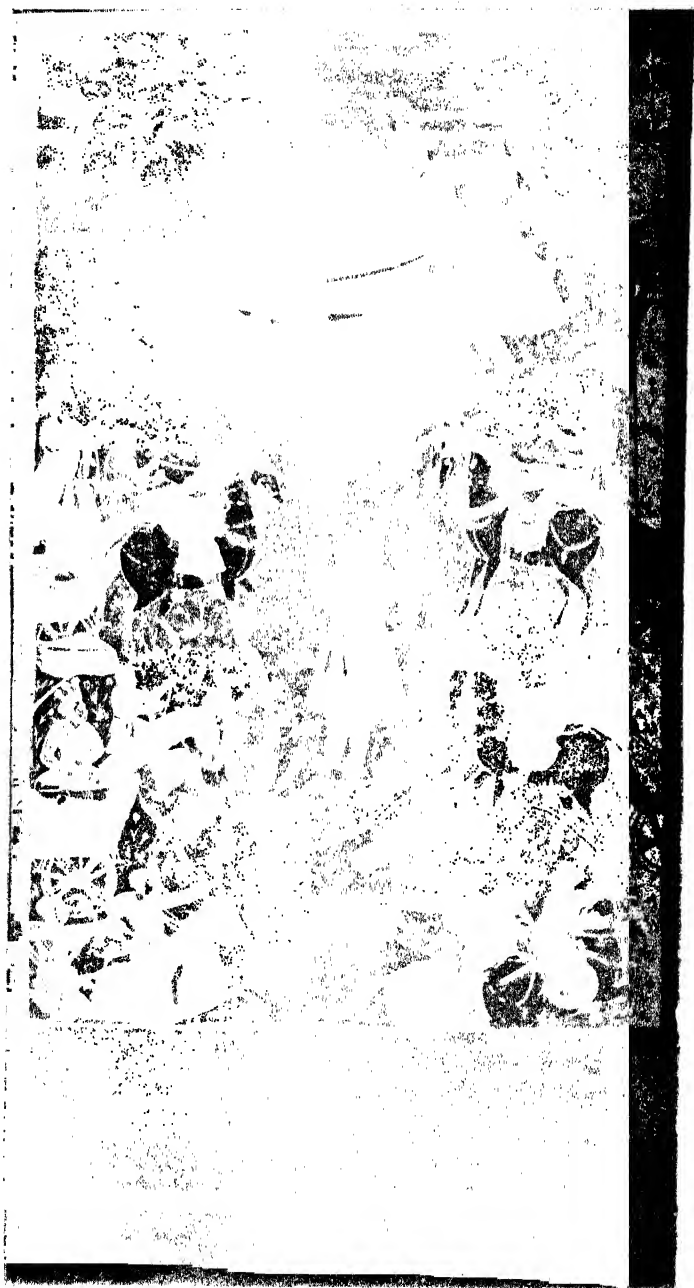


PLATE 5.



ATE 6B.

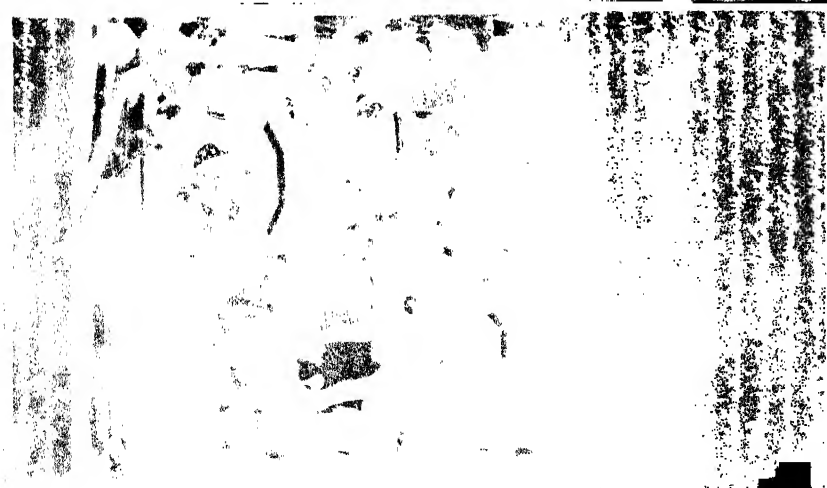


PLATE 6A.

APPENDIX A

List of Mughal Miniature-Painters

Their signed miniatures are available from the following illustrated works found in various collections. The list bears their Serial 'No.' as a reference.

1. Romance of Amir Hamza.
 - (a) Die Indischen Miniature Das Hamzae—Romance im Osterreichischen Museum fur kunst und Industrie in Wien in Auderen Ammlunger von Heinrich Gleek Mit einer wiederherstellung des Ramantextes, 10 farbigen 40 schwarzen Luchtdruck toften und 48 Abbildungen. Amal-Una-Verlong, Wien, 1925.
 - (b) Victoria Albert Museum, Collection and others.
2. Razm Nama, Jaipore (Ms. in the List No. 1) Thomas H. HENDLEY, Memorials of the Jeypore Exhibition, 4 vols. London, 1884. Vol. IV devoted to the Razm Nama with 148 Miniatures.
3. Razm Nama, Simla (Ms. in the List No. 2).
4. Razm Nama, Baroda (Ms. in the List No. 3).
5. Razm Nama, Maggs Bros., London, Bibliotheca Asiatica, No. 452, 1924.
6. Razm Nama, Mr. Justice R. B. Becket, Lahore.
7. Razm Nama, Edwards Goldston, Ltd., London, An illustrated Catalogue of Persian and Indo Persian Works of Art, 1931.
8. *Tarikh-i-Khandan-i-Timuriyah*, Catalogue of the Arabic and Persian Mss. in the Oriental Public Library at Bankipore, Vol. VII, (Indian History), pp. 40-48, Patna, 1921, by K. B. M. Abdul MUQTADIR.
9. *Indian Paintings under the Mughals*, Percy BROWN, Oxford 1924.
10. *Babur Nama*, Ms. B. M. ar. 3714.

11. *Babur Nama*, Albert Museum (SK.) London.
12. *Darab Nama*, Ms. B. M. or 4615.
13. *Khamsa-i-Nizami*, Dyon Perrings Collection, Paris.
14. *Baharistan* (Jami), Ms., Bodleian Library, Oxford, Elliot, 254.
15. *Akbar Nama* (only Miniatures), Victoria Albert Museum (SK.) London.
16. *Akbar Nama*, A. Chester Beatty's Collection, London.
17. *Shah Nama*, Ms. B. M. Add. 5600.
18. *Ayyār-i-Dānish*, Ms. A. Chester Beatty's Collection, London.
19. *Yogavasista*, Ms. A. Chester Beatty's Collection, London.
20. *Ajāibu'l-Makhlūqat*, Ms. A. Chester Beatty's Collection, London.
21. *Diwan-i-Hafiz*, Ms. Ram Pur, State Library.
22. *Anwar-i-Suhaili*, Ms. B. M. Add. 18579.
23. *Indian Drawings in the Victoria and Albert Museums* (SK.), London, by C. Stanley CLARK, 1922.
24. *Shah Jahan's Album*, A. Chester Beatty's Collection, London.
25. Miscellaneous.

Scattered miniatures found in the following collections with signatures of artists are arranged as below :—

- A. J. India Office Library, Johnson Collection which contains 67 books.
- B. Bodleian Library, Oxford.
- C. Marteau et Vaver, Miniature Persanes, Paris.
- D. Ghose, Ajit, Collection, Calcutta, Islamic Culture Hyderabad. 1934, pp.
- E. Bhagavata-Purana, (B.O.R.I.) Gode, P. K. An Illustrated Ms. copied in A.D. 1648. New Indian Antiquary, July, 1938.
- F. Shah Nama, Windsor Castle, referred to By Sir Arnold.

G. The Yasudah, (Hindi-Monthly) July 1928.

H. Miniature Painting and Painters of Persian, India and Turkey,
by F. R. Martin, London, 1912.

I. The Collection of Bahadar Singh Singhi, Calcutta.

The Artists marked thus * are also mentioned in the following
texts :—

(a) Āin-i-Akbarī, v. 1, p. 108, (Tr. B1).

(b) Maāthir-i-Rahimi, v. iii. pp. 168!-88.

(c) Memoirs of Jahangir (Tr. by Bev & Rogers) v. I, 248.

Name.		Name	
*Abdul Hamid	.. ....	Bandi Kalan	.. 18.
Abdul Karim	.. 24.	Banwali Kalan	.. 15.
Abdullah	.. 6, 10.	Banwali Khurd	.. 15.
Abdu's-Salim	.. 13, 22.	Banwari	.. 2, 3, 10, 17.
*Abdu's-Samad, Sayyid	.. ....	Banwari Kalan	.. 18.
*Abid Nadiru'z-Zaman	C. pl. 229.	Banwari Khurd	.. 4, 18.
Mashhadi.		Baqir	.. 4.
*Abu'l-Hasan	.. 22, 24.	*Basawan	.. 1, 2, 3, 8, 15.
Ahmad	.. 16.	Bhag (Pak or Phak) بهاک	.. 4, 18, 24.
Ahmad Kashmiri	.. 4.	Bhagwan	.. 2, 8, 10, 12, 20.
*Alam	.. 23.	Bhagwati	.. 17.
*Ali S. Mukhlis	.. 8.	Bhawani	.. 4, 10, 15.
Amiru'l-Umara	.. B. Douce or, a I.	Bhawani Kalan	.. ....
Anand	.. 18.	Bhim Gujarati	.. 10, 13.
Anant	.. 8, 16, 18, 23.	Bhim Jeo Gujarati	.. 8, 18.
Amin Chand	.. 24.	Bhoj Raj	.. A. j, 18.
Anis	.. 2.	Bhupal Singh	.. B. Douce, 3.
Anis Chela	.. 2.	Bhur	.. 8, 19.
Anup	.. ....	Bhurā	.. 8.
Anup Chatar	.. A. j, 15, 64.	Bhurah	.. 2, 8, 10, 12.
Anup Chatar Singh	.. ....	Bichitr	.. 24.
*Āqa Riza	.. 22.	Bihzad	.. 8, 12.
Āqā Sahibu'z-Zaman	.. 23.	Bilal Habshi	.. 5.
Asi	.. 8, 15, 18.	*Bishendas	.. 11, 19.
Bābū	.. 2.	Bol Chand	.. A. j, 25.
Bābū Naqqash	.. 16.	Bola	.. 17.
Bābū Ustād	.. 14.	Bulāqi	.. 4.
Bāhan	.. 4, 5.	Bulāqi s. Ghulām 'Ali	.. 5.
Balchand	.. 14, 23, 24.	Chānd Muhammad	.. A. j, 23.
Bāndi	.. 15.	Chetarbhuj	.. 2, 12.

Name.		Name.	
Chattar Chat	.. B. Douce or C 4.	Gur Das	.. 22.
Chitar	.. 15.	Haider Kashmiri	.. 8.
Chitra	.. 15.	Hajji	.. 4.
Chitarman <i>alias</i> Kalyan Das	.. 15 ; A. j. 58.	Hajji Ghulam Hasan	.. B. Ousley 171.
Chitar Muni چتر منی	.. 15.	Hari	.. 15.
D. I Chand	.. A. j. 58.	Hariā	.. 22.
*Daswanth	.. 1, 2, 8.	*Hari Bans	.. 12, 19.
Daulat	.. 13, 18.	Harif	.. 24.
Daulat s. Dāūd	.. 6.	Hasan	.. B. Ousley Add. 170.
Daulat Kalān	.. 23.	Hāshim	.. 24.
Deo (Dev)	.. 8.	Hashim s. Yahya	.. 5.
Deoji (Devji)	.. ....	Hunhar	.. 24.
Devdat	.. 24.	Husain	.. 4, 8, 15, 22.
Devji Gujarati	.. 8, 11.	Husain Naqqash	.. 10.
Dhanrāj	.. 10, 16, 18.	Husain Ustād	.. ....
Dhanū	.. 4, 8, 10, 12, 18.	*Ibrāhim	.. 18, 20.
Dhanun	.. 8.	Ibrāhim Kahar	.. 5, 10, 12, 15.
Dharam dās	.. 8, 12, 13, 15, 16.	Ibrahim Kashmiri	.. 12.
Dharam Das Tunda	.. 18.	Ibrahim Lahori	.. 12.
Durgah درگم - درگا	.. 11, 12, 15.	Ikhlas	.. 14, 15.
Faqirullah	.. B. Ousley Add. 170.	'Imād	.. 10.
Farrukh	.. 3, 8, 10, 12, 15, 16.	Imām Quli	.. 18.
Farrukh Beg	.. 15.	'Ināyat	.. 16, 19.
Farrukh Chela	.. 2, 10, 12, 13.	'Inayat Khanazad	.. 16.
*Farrukh Kalan (Qalmāq)	.. 9.	'Inayatullah, Savvid	.. ....
Farrukh Khurd	.. 12.	Iqbal	.. 2, 12.
Farrukh <i>Nami</i>	.. 16.	Ishar ایشر	.. 15.
Fath Chand	.. A. j. 11, 22.	*Jagan	.. 2, 8, 10, 15.
Fattu	.. 4, 5.	Jagan Nath	.. 8, 10, 15, 18.
Fazl	.. 6.	Jag Jiwan	.. 2, 3, 4, 8.
Firoz s. Sumbal	.. 4.	Jag Jiwan Kalān	.. 9.
Gayān Chand	.. 9 ; A. j. 22.	Jaini	.. 15.
Ghulam	.. B. Ousley 173.	Jalal Quli	.. 24.
Ghulām Ali	.. 2, 3.	Jamshed	.. 4, 5, 7.
Ghulam Riza	.. ....	Jaswanthā	.. 2.
Ghulam Ikhlas	.. 9.	Jhar Mal	.. A. j. 25.
Gobind	.. 5, 10.	Kāli Chela	.. 18.
Gobind Rai	.. A. j. 25.	Kalu Bahtul	.. B. Land or 145.
Gobind (s.) Shankar	.. 9.	Kālu Lahori	.. 12.
Gobind Singh	.. A. j. 51, 42.	Kalyān Dās (Chatarbhu)	.. ....
Govardhan	.. 9, 18.	Kamāl	.. 8.
Gulab Rai, Ustād	.. A. j. 24.	Kamāli Chela	.. ....
		Kamāl Kashmiri	.. 9.
		Kanha کانہا	.. 2, 3, 8, 12, 15 20, 21.

Name.		Name.	
Kank (Gang) کنک	.. 8.	Māh Muhammad	.. 15.
Kank Singh کنک سنی	.. 13.	Makar	.. 4, 18.
Karam Chand	.. 12.	Makra	.. 10.
Ka'im Dād	.. 18.	Man من	.. 2.
Kashmīr Dāss. La ⁶	.. 16.	Manah (Manh) منہ	.. 8.
Kashmiri (2)	.. 8.	Mani منی	.. 2.
*Kesu	.. 2, 10, 15, 19.	Masūd	.. A. J. 22.
Kesu Das	.. 2.	Mehr Chand	.. 9.
Kesu Gujarati	.. 18.	Manohar	.. 8, 10, 13, 15, 16.
Kesu Kahar	.. 9, 13.		
Kesu Kalān	.. 9, 12, 15.	*Mansur (Nādiru 'l- ⁶ Asr)	.. 15, 23.
		Mansur Naqqash	.. 10.
Kesu Khurd	.. 2, 9, 15, 18, 20.	Mathra (Muthra)	.. 9, 12.
Khan-i-Daurān (Khanrawan)	.. 9.	Matohra (Mathora) متواہرا	.. 8.
Khem	.. 9, 14, 18.	Meto Das	.. C.
Khem Khurd	.. 18.	*Miān Nadim	.. ....
Khemān	.. 4.	Mirak	.. 3.
Khemān Sangtrash	.. 8, 15.	Mir Hasan	.. 10.
Khemkar	.. 8.	Mir Hashim	.. 24.
*Khem Karan	.. 2, 3, 10, 12-16.	Mir Muhammad	.. 9; A. J, 9, 5.
Khem Karan Sangtrash	.. 15.	*Mir Sayyid 'Ali Tabrezi	.. 1, 3.
Khizr	.. 14.	Mir Tahawwar Khan	.. 17.
Khizr s. Njāz	.. 5.	Mir Taqi (Naqi ?)	.. 16.
Khumān Sangtrash	.. 9.	Mirzā Ghulam	.. 22.
Khusrau Quli	.. 10.	*Miskin (Maskin)	.. 2, 8, 12, 15.
*Khawja Abdus-Samad	.. 1, 14.	Miskina	.. 2, 8.
Kulū Lahori	.. 12.	Miskin Muḥammad	.. A. J, 21, 58.
Lāh	.. 2.	Modi Ustad	.. A. J, 18.
Lachhman	.. G.	Mohan	.. 22.
Lachhman Singh	.. A. J, 1.	Mohan (s.) Shankar	.. 9.
*La ⁶ l	.. 2, 8, 14, 15.	Mohan Singh	.. ....
La ⁶ l Chand	.. 24.	Muhammad 'Abid	.. 9.
Lālū	.. 2.	Muhammad Afzal	.. ....
Lek Rāj (Lekh Rāj)	.. 9.	Muhammad 'Ashiq	.. ....
lohankā لوہنکا	.. 8.	Muhammad Faqirullah Khan	.. ....
*Madho	.. 3, 8, 15, 17, 22.	Muhammad Kashmiri	.. 8.
Madho Gujarati	.. 4, 14.	Muhammad Murād	.. 9.
Madho Kalan	.. 2, 9, 12, 15, 18.	Muhammad Nadir	.. 9.
		Muhammad Riza	.. 22.
Madho Khurd	.. 2, 9, 12, 15.	Muhammad Sharif	.. 2.
Maharāj Kalan	.. 9.	Muhammad Yūsuf	.. 2.
*Mahesh	.. 2, 10, 12, 20.		
Mahesha (?)	.. 2.	*Mukand	.. 2, 8, 13-16.
Mahesh (s.) Narayan	.. 2.	Mukbir s. Bichitr	.. F.
		Mukhlis	.. 2, 8, 10, 12, 14, 15.
		Mukhlis 'Ali	.. 8.

Name.		Name.	
Mul Chand	.. A. J, 21.	*Rām	.. 2, 9.
Mulla Shoh Muhammad	.. 8.	Rām Das	.. 2, 8, 10, 11.
Muni	.. 2, 15, 18, 20.	Rām Sahai	.. 9; A. J, 1.
Munir (?)	.. 2.	Rao Gobind Singh	.. 9, A. J, 1.
*Mushfiq	.. ....	Raziullah	.. B. Douce or a 3.
Nadir Balend Iqbal	.. 9.	Sādiq	.. 5.
Nadir Khan	.. A. J, 58.	Sahifa Bānu	.. 25.
Nadir Muhammad	.. 9.	Sahu	.. 8.
Nadiru ⁶ z-Zaman	.. B. Douce Or 1; A. J, 67.	Sain Das	.. 14.
Nainan	.. 9.	Salman	.. ....
Nama	.. 18.	Salim Quli	.. 22.
Naman	.. 8.	Salivahana	.. 3.
Nana (Nanha)	.. ....	Samand *	.. 9.
Nand	.. 18.	Sank (Sang or Sing) سنكى	.. 8.
Nand Gwaliari	.. 8, 10, 13.	Sankjiv S. Surjiv Gujarati	.. 4.
Nand S. Ram Das	.. 14.	Sankraṇ	.. 2.
Nandi S. Ram Das	.. 15.	Sanku سنكو	.. 8.
Nanha	.. 8, 12, 15,	*Sanwala	.. 2, 10, 12, 13, 15, 16, 18.
Nanwa	.. 2.	Sarjan	.. 10, 12.
Naqqāsh	.. 8.	Sarwan	.. 8.
Narayan	.. 2, 4, 8, 10, 12, 15.	Sewan Nāmī	.. 15.
Nar Singh	.. 13, 15, 18.	Shah Muhammad (Mulla Shah Mohde).	....
Nini	.. 23.	Shaikh Sananllah	.. D.
Odar Singh	.. A. j, 42.	Sham (Shiyam)	.. 10, 18.
Paramjiv	.. 2.	Sham Das	.. A. J, 67.
Paramjiv Gujarati	.. 8, 15.	Shankar	.. 2, 15, 16, 18.
Paras	.. 2-5, 8, 10, 12, 15, 18.	Shankar Gujarati	.. 10, 12, 18.
Paras Kahar	.. 12.	Sharif	.. 2.
Parsa	.. 2.	Sheru S. Nahir	.. 5.
Pidarath (Padarath)	.. 10, 16, 18, 22, 23.	Shihabu'd Din (Sahabdin)	.. E.
Pir Muhammad	.. A. J, 58.	Shimāl	.. 17.
Qabil	.. 4.	Shiv Das	.. 10, 12, 14, 17
Qabul Ahmad	.. 15.	Shiv Das Nāmī	.. 14.
Qabul Chela	.. 15.	Shiv Raj Gujarati	.. 18.
Qāsim	.. 17.	Simah Khan	.. 9.
Rahmān Quli	.. 22.	Singha سنكه (Shanka)	.. 7.
Rai Anup Chatar	.. A. J, 21.	Sital Das	.. ....
Rai Chatarman	.. A. J, 24, 50, 20.	Sukh Jiwan	.. 2.
Rai Fath Chand	.. A. J, 7.	Suleyman Kalan	.. 14.
Rai Jhat Mal	.. A. J, 22.	Sur (Sura)	.. 9.
Rai Utam Chand	.. A. J, 21.	Sur Das	.. 15, 16, 18.
Raia Manohar Singh	.. A. J, 4.	Sur Das S. Ishar	.. 7, 10.
		Sur Gujarati	.. 9, 10.
		Suraṇ	.. 8.

Name.		Name.	
Surjan سیرجن	.. 2, 4, 8, 18.	Thakar Rāo Singh	.. A. J. 1.
Surjiv Gujarati	.. 8, 18.	Thirpi (Tirpal)	.. 2, 10, 18.
Sur Sing	.. 16.	Tiriyya	.. 10, 12, 18, 19.
Taluk	.. 10, 12.	Tulsi	.. 2, 8, 12, 15 19.
Taqi (Nqī نقی)	.. 16.	Tulsi Kalan	.. 9, 12, 15.
*Tārā	.. 2.	Tulsi Khurd	.. 10, 15.
Tara Chand	.. 12.	Utam Chand	.. A. J. 25, 23.
Tara Kalan	.. 15.	Ya ⁶ qub Kashmiri	.. 11.
Tek Chand	.. A. J. 1.		

APPENDIX B The Index of the Persian Version

No.	Sanskrit Names of Parvans with number of Slokas*	Persian Names of Parvans (پرب) with number of Slokas	Contents : According to the abridgement of Tahir Muhammad.
		Berlin Ms.	Abrid.
1	Adi Parva 8,884	آد پرب 8,884	آد 8,884
2	Sabha Parva 2,511	سبھا 2,511	سبھا 2,515
3	Vana Parva 11,664	بن 11,360	ارن 11,364
4	Virata Parva 2,050	برات 2,005	برات 2,050

APPENDICES

Account of the Karus and Pandavas.

Jadthal's (Yudhisthira) sending his brothers in the various directions of the world for conquest; Performance of Rajasuya; Arranging an assembly of gambling.

Pandavas going into the jungle where they remained for 12 years and Account of the incidents that took place in the meantime.

The return of the Pandavas from the jungle to the city of Barat (Virata) and hide themselves there.

5	Udyoga Parva ..	..	6,698	Odam	اودم	..	6,628	Pandavas disclosing their identity and proceeding to Kurkhat (Kurukshetra) for battle and arranging army.
6	Bhishma Parva ..	..	5,884	Bhikam	بھیکم	..	5,884	Battle between two parties and Bhikam's sustaining wounds and falling in the battlefield. The death of many of the sons of Dhartashak (Dhritaraashtra) with an account of ten days' battle.
7	Drona Parva ..	..	8,909	Daruna	درؤنہ	..	8,909	On Jarjodhan (Duryodhana)'s holding council, the falling down of Drona (Drona) on the 5th day. Account of other 5 days concerning Bhikam sustaining wounds.
8	Karna Parva ..	..	4,964	Karn	کرن	..	4,964	Account of two other days' fighting and the death of Karn, one of the illustrious men of his time and distinguished for his physical and mental qualities. Account of Karn's fighting and the fight of Jedahal before him and his being killed by Arjun.

* These numbers are taken from the southern Edition of the MB. which are not generally accepted.

APPENDIX B—contd.

APPENDICES

No.	Sanskrit Names of Parvans with number of Slokas *		Persian Names of Parvans (پرب) with number of Slokas			Contents : According to the abridgement of Tahir Muhammad.
			Berlin Ms.	Shal	Abrid.	
9	Salya Parva ..	3,220 ..	سال ..	3,208 ..	شل ..	3,200 .. Account of Shal and other warriors being hanged, 90 persons killed. Daryodhan's hiding and his brothers being killed by mace in the battle which lasted for 18 days.
10	Sauptika Parva ..	870 ..	سوپت ..	880 ..	سالوک ..	870 .. Night attack led by Karl Barnha (Krita Varman), Astham (Asvatthaman), Kanya (Kripa), etc., on the army of Pandavas had returned safe from the battlefield to their place.
11	Sri Parva ..	775 ..	استری ..	775 ..	استری ..	775 .. Weeping of the women of both sides, Gandhari, the mother of Daryodhana cursing Krishna.
12	Santi Parva ..	14,725 ..	سانت ..	19,374 ..	سانت ..	19,734 .. After the victory Jashball wanted to renounce the world and its comforts. Krishna urges him with convincing

13	Anusasana ..	8,000	Bhikam's advice نصائح بهیکم	8,000	Anusasana ..	8,000	arguments in the company of Bhikam who was still alive and Jadahall listening attentively to the words of advice and admonitions.
14	Asvamedhika ..	3,320	Asmed اسمد	3,308	Asmed اسمد	3,320	An account of sacrifice of Asmed when Bhikam after the completion of admonitions re-nounces the faithless world. Jadahall on seeing the condition wanted to follow the path of renunciation. Vayas uttered good words about supremacy and urged Yudhishtar and for the sake of the satisfaction of the heart of Yudhishtira he ordered a sacrifice.
15	Asramavassika ..	1,506	Asram اسرم	300	Bayas Asram بیاس اسرم	500	Renunciation of Dhruatik, Candhari, the mother of Jarjashan, Kunti, the mother of Jodishkar and their going to the jungle in the region of Kurukshetra where Vayas lived and Pandava followed to see them.

* These numbers are taken from the southern Edition of the MB. which are not generally accepted.

APPENDIX B—*concd.*

No.	Sanskrit Names of Parvans with number of Slokas*	Persian Names of Parvans (پرب) with number of Slokas			Contents : According to the abridgement of Tahir Muhammad.
		Berlin Ms.	Abrid.		
16	Mausala Parva ..	320 Mosal ..	300 Masal ..	300 موسل ..	Account of Jadwan (Balaram) and Krishan and dying in miserable circumstances and other incidents.
17	Mahaprasthanika ..	320 Jan ..	360 Jan ..	320 جان ..	Jedishtar's and his brother's renunciation of the world and entrusting the kingdom to people and their departure to the Himalaya or ice hills.
18	Sargarohana ..	207 Sarkawahan نسروکاروهن ..	200 Sarkarvahan نسروکاروهن ..	200	Pandavas' resigning the souls to the above-mentioned mountain and the physical ascension of Yudishthira to the higher world.
19	....	Khatima Harbans خاتمه	Khatima Harban or Acharya خاتمه		The account of Jadwan's (Balaramas).

*These numbers are taken from the southern Edition of the MB. which are not generally accepted.

APPENDIX C.

Statement showing the contents of Persian Manuscripts of the Razm Nama (Mahabharata) in various Collections
 *For miniatures and their artists see Appendix C

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Serial No.	Date A.D.	Place where exists.	Owner.	List No.	Folios.	Dimen- sions.	Line in each page.	No. of Minia- tures*.	Script.	Name of Scribe	Place where prepared.	Remarks.	
1	C 1004	1595	Jaipore	Pothi Khana	..	..	..	165	Nast	Sharif	....	Complete.
2	1014	1605	Simla	A Dealer	..	15" x 10"	..	84	Do.	Pir Muhammad son of Muham mad Hafiz.	....	Complete in 3 volumes.
3	C 1014	1605	Baroda	State Museum.	..	pp.474 pp.877	12" x 7"	27	31	Naskhi	....	I, II, III, parvans in two volumes.
4	C 1007	1598	Paris	Bibl. Nation- ale.	218	733	38" x 23" cm.	..	..	Nast	....	Complete.

APPENDIX

APPENDIX C—contd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Serial No.	Date A.D.		Place where exists,	Owner.	List No.	Folios.	Dimensions.	Line in each page.	No. of Miniatures*	Script.	Name of Scribe.	Place where prepared.	Remarks.
5	1107	1695	London	British Museum.	Add. 5641 5642	370 481	11½" × 6½"	27	128	Naskhi	....	....	Complete, gold-ruled margins. At the end it is stated that it was compiled by Besant Rai, son of Kasi Ram, son of Raimae, a Kayasth in the service of Shaistah Khan, in the 31st year of Aurangzeb's reign i.e. A.H. 1098. It contains complete Index.
6	1177	1763	Do.	Do.	Add. 5638-40	413 371 440	15½" × 9½"	22	68 36 30	Nast ..	Mu h a m m a d Muradabad. Khan.		Complete in 3 volumes.
7	1218-19	C1803-4	Do.	Do.	Add. 16820	283	19" × 18"	29	..	Shuk	....	....	Complete in one volume.

8	..	1890	Do.	..	Do.	..	Add. 80 16873	10×6½"	12	..	Nast	....	....	IV (parvan). It is a different version and much fuller.
9	..	1798	Do.	..	Do.	..	Add. 206 7036	12½"×7¼"	..	..	....	....	....	These are N. B. Halbed's marginal notes on the MB. with some extracts in Persian.
10	1175	1761	Do.	..	Do.	..	.. Ov. 5461	9¼"×6"	18	..	Naskhi	Walinkab	Sambhal	XIV (parvan).
11	1234	1876	Do.	..	Do.	..	.. Ov. 1863	20-34	18	..	Nast	....	....	Only the story of Raja Janamejaya, from the translation of the MB. (Faizi)
12	..	1850	Do.	..	Do.	..	.. Ov. 2014	112-118	15	..	Nast	....	....	Abstract of the III parvan.
13	1136	1724	Do.	..	Do.	..	.. Ov. 2016	26-123	27	..	Shik	....	....	Abridgement of the Persian version of the MB. by Tahir Muhammad B. Imādu'd-Din Sabzwāri.
14	1045-6	1635-6	Do.	..	Do.	..	.. Ov. 168	467-523	21	..	Nast	....	....	Do.
15	1101	..	Oxford	..	Bodleian Library.	..	1306	372, 189	19-23	..	Nast, Shik	Sadanand	Qasur (Lahore).	Complete in four Volumes. All bear varied dates.

APPENDIX C—*contd.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Serial No.	Date A.D.		Place where exists.	Owner.	List No.	Folios.	Dimen- sions.	Line in each page.	No. of Minia- tures.*	Script.	Name of Scribe.	Place where prepared.	Remarks.
16	1221	1806	Oxford	Bodleian Library.	1307	810	10 $\frac{3}{8}$ " x 7 $\frac{1}{4}$ "	23	..	Nast and Shik.	Partap Rai	..	Complete in 7 vols. All bear varied dates.
17	1173	1759	Do.	Do.	..	1308	705 12 $\frac{3}{8}$ " x 8 $\frac{1}{4}$ "	11	..	..	....	..	I-IV; XII; XIII-XVIII (parvans) in four vols.
18	..	..	Do.	Do.	..	1309	383 7" x 4"	11-13	..	..	....	..	I (parva) with preface.
19	1139	1726	Do.	Do.	..	1310	208 9 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ "	13-17	..	..	....	..	I (parva).
20	..	..	Do.	Do.	..	1311	112 9 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ "	13-17	..	..	....	..	Abu'l Fazl's intro only but different from the usual one.
21	1138	1726	Do.	Do.	..	1312	173-231 9 $\frac{3}{8}$ " x 5 $\frac{3}{4}$ "	13-17	..	..	....	Ahmad- abad.	II (parva).

22	..	..	Do.	..	1313	120 9 $\frac{3}{8}$ " x 5 $\frac{3}{8}$ "	18	..	..	I (parva) with Faizi's thirty verses in the beginning.
23	1041	1632	Do.	..	1314	172 10 $\frac{3}{8}$ " x 5 $\frac{1}{2}$ "	16	..	....	V (parva) differs from the prose trans.
24	1220	1806	Do.	..	2407	115 10 $\frac{3}{8}$ " x 7 $\frac{1}{2}$ "	18-23	..	....	I (parva) with preface.
25	..	..	Do.	..	2408	352 11 $\frac{1}{8}$ " x 7 $\frac{1}{2}$ "	14-24	..	Shik ..	Abridgement by Tahir Muhammad but defective and badly transcribed.
26	..	17th Cent.	Paris	..	219	763 36 x 23 cms.	..	..	Nast .. M u h a m m a d Y a h y a	Complete.
27	..	Do.	Do.	..	220	36 26 x 20 cm.	..	..	..	III (parva).
28	..	18th Cent.	Do.	..	229	.. 31" x 20"	..	..	..	XVI (parva).
29	..	Do.	Do.	..	1939	46 21" x 12"	..	..	..	I, II (parva) with preface.
30	..	..	Cambridge Univ. Library	..	1147-1150	124 23·9 x (2) 15·2c	15	..	Taliq ..	IV, XII-XIII, XV-XVIII (parva) in 4 vols.
31	..	..	Do.	..	XXXVII	98 24·3 x 14·5c	15	..	..	IV (parva).

APPENDIX C—contd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Serial No.	Date A.D.		Place where exists.	Owner.	List No.	Folios.	Dimensions.	Line in each page.	No. of Miniatures*.	Script.	Name of Scribe	Place where prepared.	Remarks.
32	..	..	Cambridge	Univ. Library.	XXXVII-XXXVIII	200	27.2 × 16.2 cm.	15	..	Taliq.	....	..	12 (parvans).
33	..	19th Cent.	Patna	Oriental Library.	1448	432	10" × 5½"	21	..	"	....	..	First nine parvans with preface.
34	..	..	Do.	Do.	1449	452	13½" × 7½"	23	..	Flowery	....	..	A different version from the above.
35	1151	1738	Lahore	Punjab Univ. Library.	A.Pc. III 40	352	15½" × 10½"	33	..	Nast	....	..	Complete.
36	1197-98	1783-84	Berlin	Königlichen	1079	1030	30.5 × 20 c.m.	11	..	"	Kahnji Mal	Muradabad.	Do.
37	1099	1687	Calcutta	R. A. Society of Bengal.	1695	..	..	17	..	..	....	Patna	Complete in 2 vols.

38	1213	1798	Do.	Do.	1696	625	..	16	..	Muhammad Muiz- ud Din Bukha- rim.	..	Do.	..
39	1138	1725	Do.	Do.	1697	115	..	15	..	....	..	VII-XVIII (survan).	..
40	19085	..	Do.	Do.	677	673	..	15	..	....	..	Complete.	..
41	1048 or 1078(2)	1638 1667	Poona	M. A. Chag- hatai.	..	89	11 1/4" x 6 1/4"	17	..	Shik	Gang. (Bengal)	An Abridgement of Tahir Muhammad.	..
42	..	..	Hyderabad Dn.	State Library	286 (H.P.)	..	..	..	..	....	..	....	..
43	..	..	Do.	Do.	1747 (H.P.)	..	..	..	..	....	..	....	..
44	..	..	Do.	Do.	1515 (H.P.)	..	..	..	..	....	..	....	..
45	1184- 87	1770- 73	London	India Office	1928	1706	11 1/4" x 6"	19	..	Naskhi	..	Complete in 4 vols.	..
46	1188	1774	Do.	Do.	1929	714	16 3/8" x 10 1/2"	27	..	Nast	..	Complete as No. 5.	..
47	..	..	Do.	Do.	1930	396	19 3/8" x 12 1/2"	29	..	..	..	Complete.	..
										Shaikh Baballah and Faizullah Munshi.	..	..	..
										Muhammad Amin Beg.	..	..	..

APPENDIX C—concl'd.

Serial No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Date	A.D.	Place where exists.	Owner.	List No.	Folios.	Dimen- sions.	Line in each page.	No. of Minia- tures*.	Script.	Name of Scribe	Place where prepared.	Remarks.
78		1189-1253	1775-1837	Rampur	State Library.	419	241	10" x 7"	15-17	..	Nast	Khan Raj son of Lakh Raj.	of Rampur.	VII-XI (parvans).
79		1278	1868	Do.	Do.	421	39	9 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ "	21	..	..	Ghansi Ram	Do.	XII (parvan).
80		Do.	Do.	420	297	9 $\frac{1}{2}$ " x 6"	15	..	..	....	..	I-VII (parvan).
81		Do.	Do.	422	230	9 $\frac{1}{2}$ " x 6"	15	..	..	....	..	I-XIII (parvans)
82		..	18th Cent.	Do.	Do.	630	389	13 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ "	25	24	..	....	..	I-IX (parvans) with preface.
83		1106	1694	Do.	Do.	423	430	12" x 8"	19	..	..	Shankar Lal	..	XIII-XVIII (parvans).
84		1232	1817	Poona	D.C.R.I.	13	244	10" x 5 $\frac{1}{2}$ "	11-17	Ord.Nt.	..	....	..	Faizi's l.

The writer feels his duty to express his sincere gratitude to the following persons for supplying particulars of the MSS. of the Razm Nama in their charge and some information from the catalogues of foreign collections which were not available here:—Khan Bahadur Maulvi Muhammad Shafi, Chairman, Punjab University Library, Lahore; Mr. S. S. Seth, Librarian, Punjab University Library; Prof. Muhammad Iqbal, Oriental College, Lahore; Maulana Imtiyaz Ali Khan 'Arshi, Superintendent, State Library, Ram Pur; The Curator, State Museum and Picture Gallery, Baroda.

APPENDIX D.

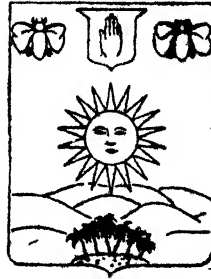
List of Books translated into Persian from Sanskrit at Akbar's Court.

1. Atharbed by Badāyūnī and others.
 2. Bhagwad Gitā by Faizi and other, *Ain-i-Akbarī*, 103-5.
 3. Gangadhar by Abu'l Fazl (ib).
 4. Harivaṃśa by Maulana Sheri (ibi).
 5. Jog-Bashishta translated in A.H. 1002 [1598 A. D.] by one Maulana Faraniuli ; a native of Faraniul near Kabul. It was illustrated by court Artists of Akbar. This original Ms. with illustrations is with Mr. A. C. Beatty.
 6. Katha Sarit Sagara, Badāyūnī, II, 401-2.
 7. Kishen Joshi by Abu'l-Fazl, *op. cit.*
 8. Lilavati by Faizi. AA. *op. cit.* 103-5.
 9. Mahābhārata, described above.
 10. Mahesh Mohanand by Abu'l-Fazl, AA. *op. cit.* 103-5.
 11. Nal Daman by Faizi, *Ibid.*
 12. Singhāsana Battisī by Badayuni, II (Trans.) 186 ; and it was called *Nama-i-Khird Afzā*.
 13. Rāmāyaṇa by Badayuni and others, II (Trans.) 378.
- Col. H. B. Hanna claimed to possess Akbar's copy of the Rāmāyaṇa with 129 full page illustrations signed by the artists Catalogue of Indo-Persian Pictures and Mss. collected by Col. H. B. Hanna, 27, London, 1890 cited by Mr. Wilkinson in his 'the Library of Chester Beatty' a Catalogue, XXVII.
- Mulla Masih of Panipat had made a poetical version of the Rāmāyaṇa during Jahangir's reign. *Proceedings of the Indian History Congress*, Calcutta, 1939, 914, 1662. 'Presidential Address' of Dr. Tara Chand to the Mughal Section.
14. Tajak on Astronomy by Muhammad Khan of Gujarat, *Ain*. 103-5.
 15. Treatise of Elephants by Mullā Sheri, *Darbar Akbari*, 5th ed. Lahore, 1939, 770.

VOL. VI.

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VOCATIVES IN THE CRITICAL EDITION OF THE MAHĀBHĀRATA¹

By

E. D. KULKARNI, Poona.

The study of vocatives in the Critical Edition of the Mahābhārata is important from various points of view : the first and the foremost of which is that, it throws a considerable light on the phenomenon of 'transfers of epithet' in the application of which a change in number, gender or case is also involved.² A casual glance at the material presented below, indicates the ground which makes the transfer of epithet possible.

This study of vocatives is important also from the point of view of their significance or otherwise in the Mbh. According to Prof. V. K. RAJAWADE, a host of these vocatives and epithets is one of the sources for filling out the gaps.³ We agree with him in saying that they are stop-gaps and fillers, but not all of them are insignificant, as he thinks. On the other hand the majority of them are contextual and significant, containing various hidden allusions and sly hits. The truth of the statement is made evident in this present paper.

For the sake of facilitating the study, we have divided the topic into the following categories :—(1) kinship terms, (2) terms which are of the nature of secondary derivatives, (3) terms of addressing, (4) terms of reverence, (5) qualificatory terms, (6) symbolic terms, (7) terms of reproach, (8) ironical terms, etymological terms, (12) abbreviations, (13) descriptive terms and (14) miscellaneous.

I. *Kinship Terms.*⁴ (A) We have noticed the following kinship terms as they occur, uncompounded to any noun : *kānta*, *pitar*, *putra*, *putraka*, *putri*, *mātar*, *mātula*, *vadhū*.

The word *kānta* (also *nātha*) is used in the sense of a husband, when Damayanti addresses Nala.

The word *pitar* is used in three different senses ; Yudhiṣṭhira addresses Yama, his legitimate father, as a father ; Lopāmudrā addresses the king Vaidarbha, her father, as a father ; Aṣṭāvakra, while in the womb of his mother, addresses his father Kahoḍa by the same term. Lastly Agastya addresses his forefathers, who were rolling in the girth, by the term fathers.

The word *putra* is used in the following senses, (a) for one's own son, either legitimate or begotten, e.g. Rāvaṇa calls his son Indrajit by this term (Kāśyapa—Rṣyaśṛṅga ; Kuntī—Karna ; Jamadagni—Paraśurāma ; Yama—Yudhiṣṭhira ; Dyu-matsena—Satyavat ; Vinatā and Svāhā—Skanda ; Śiva—Skanda) ; (b) for son's son, e.g. Vyāsa addresses Yudhiṣṭhira as a son.

¹ The study is based on the critical edition of the Vanaparvan, edited by the late Dr. V. S. SUKTHANKAR, and published at the Bhandarkar Oriental Research Institute, Poona.

² When I was engaged on my thesis, 'Case variation in the critical edition of the Mbh.' Dr. S. M. KATRE brought this point to my notice that the vocatives in the Mbh. need critical investigation. I am much obliged to him for this and for his guidance in the preparation of this paper.

³ Cf. RAJAWADE, *Gītā* from grammatical and literary point of view, *Bhandarkar Commemoration Volume*, 331.

⁴ Cf. I. KARVE, *Sukthankar Memorial Volume*, BDCRI, V, 68-106.

The word *putraka* also has the same connotations. It is a term of endearment (a) for one's own son, (Kuntī—Karna; Vyāsa—Dhṛtarāṣṭra; Dyumatsena—Satyawat); (b) for son's son, (Sagara—Arīṣumat); (c) for any young person (Vṛddhau—Vvādhau).

The word *putri* is used as a term of address for one's own daughter, (Kuntī—bhoja—Kuntī; Aśvapati—Sāvitrī; and once for the daughter-in-law by the father-in-law (Dyumatsena—Sāvitrī).

The word *mātar* is used (a) for one's own mother (Bharata—Kaikeyī, Damayanti—her own mother); (b) for mother's sister, (Damayanti—Queen of Cedi).

The word *mātula* is found only once in the Vanaparvan, used by Duṣṣāsana while addressing Śakuni, his mother's brother.

The *yamau* is used to Nakula and Sahadeva, who were twin-brothers.

The word *vadhū*⁵ is used as a term of address for the daughter-in-law by the father-in-law. (Dyumatsena—Sāvitrī).

(B) There are other kinship terms like *ātmaja* or *ātmajā*, *nandana*, *putra* or *putrī* and *śulā*, denoting an 'offspring' and are noticed compounded with some noun, which is a name of a person or a family. All of them, except one, are *ṣaṣṭhītatpuruṣa* compounds, while once we get a *bahuvrīhi* compound with *mātar* e.g. *kuntīmātar*. (a) *Terms compounded with ātmaja* :— *dārukātmaja*, *devaja*, *dvijavarātmaja*, *narādhipātmaje*, *nṛpātmaja*, *nṛpātmaje*, *manujātmaje*, *mārutātmaja*, *śakrātmaja*, *surātmaja*, *sūtaja*. (b) *Terms compounded with nandana*—*kurunandana* (a descendant of a kuru family), *keśavanandana*, *kauravanandana* (pleasing or dear to Kauravas), *dārukanandana*, *pāṇḍavanandana* (pleasing to Pāṇḍavas), *pāṇḍunandana* (a son of Pāṇḍu), *pārthivanandana*, *bhārgavanandana* (descendant of a bhārgava family), *bhṛṅgunandana*, *yādavanandana* (descendant of yadu family), *raghunandana*, *vṛṣṇinandana*, and *sūtanandana*.

(c) *Terms compounded with kanyā*—*kuntikanye*⁶.

(d) *Terms compounded with putra*—*kāśyapaputra*, *narendraputra*, *pāṇḍuputra*, *rājaputra*, *rājaputri*, *sūtaputra*.

II. Secondary Derivatives (*Taddhitas*).

They are formed from nouns indicating the relation, generally patronymic and metronymic relations. We get some derivatives from the names of a country or people or a family to denote the prince or princess of that particular country or descending from that family⁷.

(a) *The derivatives showing patronymic relations*—*kaśika*, *pāṇḍava*, *pāṇḍaveya*, *pārikṣita*, *bhaimi*, *yājñaseni*, *vāsava*, *vāsudeva*, *vaichitravīrya*.

(b) *The derivatives showing metronymic relations*—*kaunteya*, *gāndhāre*, *mādreya*, *rādheya*, *raukmineya*, *rauhineya*, *śaibya*, *haidimbeya*.

(c) *The derivatives from the names of countries or families*—*kākutstha*, *kaurava*, *kauraveya*, *naiṣadha*, (relating or belonging to or ruling over Nīṣadha country) *pāñcālī* (the princess of pāñcāla country), *maithilī*, *bhārata* (descendant of Bharata), *bhārgava*, *rāghava*, *vārṣṇeya* (belonging to the family of Vṛṣṇis), *vaidarbhi*, *vaidehi*.

III. Terms of Addressing.

Certain rules regarding the various modes of addressing are laid down by the writers on Dramaturgy (*Nāṭyaśāstra*). The epic poetry, which is characterised as

⁵ The form in the text is doubtful.

⁶ Probably it is a metrical shortening i.e. shortening *meha-causa*.

⁷ Cf. WHITNEY, Sanskrit Grammar, 456, 1206.

having an irrepressible tendency towards vocative address, confirms some of those rules⁸.

The word *aṅga* is used in the Vanaparvan, implying attention.

The term *āyusman* is applied to a chariot-rider by his charioteer.⁸ Once we note in this parvan, *sūta* addressing Pradyumna, son of Kṛṣṇa, as *āyusman*. Moreover, we have noticed two instances in a benedictory sense⁹ e.g. by this term Yudhiṣṭhira addresses Nahuṣa and Nahuṣa in his turn also addresses Yudhiṣṭhira.

Next Bhīma addresses his elder brother, Yudhiṣṭhira by the term *ārya*.⁸

The word *tāta* is a term of affection or endearment and is applied to (a) a younger brother⁸ (Yudhiṣṭhira—Bhīma or Arjuna or Nakula or Sahadeva; Rāma—Bharata); (b) a son, (Kāśyapa—R̥ṣyaśṛṅga, Bhīma—Ghaṭotkaca, Vyāsa—Dhṛtarāṣṭra, Jamadagni—Paraśurāma, Bali—Prahlaḍa); (c) a brother's son, (Dhṛtarāṣṭra—Karna); (d) a sister's son, (Sakuni—Duryodhana); (e) a son's son, (Sagara—Anuśumat; (f) a cousin, (Yudhiṣṭhira—Duryodhana). In short, it is applied to the person who is junior or inferior to the speaker.

It is also used as a term of respect applied to the elders and other venerable personages (Janaka—Aṣṭāvakra, Vyādha—Kauśika, Yudhiṣṭhira—Citrasena, Vaiśampāyana—Janamejaya, Matsya—Manu, Mārkaṇḍeya—Yudhiṣṭhira).

It is specially used to a father, (R̥ṣyaśṛṅga—Kāśyapa, Paraśurāma—Jamadagni and Prahlaḍa—Bali) and once to a father-in-law by a daughter-in-law (Sāvitri—Dyumatseṇa).

The word *putra* or *putraka* is another term of endearment applied to the juniors. (Pulastya—Bhīma, Bharadvāja—Yavakri, Brahman—Rāma and Vibhiṣaṇa, Vṛdhau—Vyādha).

Only once Sītā addresses Hanumat by the term *putra*, who was dear to her as her own son.

The term *bhagavan* is generally applied to the learned men e.g. (Vaiśampāyana, Vyāsa), to the divine sages e.g. (Agastya, Dhaumya, Nārada, Manu, Mārkaṇḍeya, Lomaśa, Vāmadeva) and lastly to demigods (Kubera, Yama, Sūrya).⁸

The term *bhadra* or *bhadre* is used always in a familiar address. Terms, similarly used are *bhīru*, *śubhe* and *sakhi*, though the last one is restricted to addressing the friends only.

The term *māriṣa*, is used once by Nala, who was in guise of a charioteer, while addressing the king R̥tuparna.

The words *vatsa* and *vatse* are used as terms of address to one's own son (Sūrya—Karna, Daśaratha—Rāma) and to one's own daughter respectively (Kuntibhoja—Kuntī).⁸

The word *putri* as already indicated, is used as a term of address to one's own daughter as well as to daughter-in-law by father-in-law. While the word *vadhū* is noticed only in a latter sense.

IV. The *stock-terms of reverence*, used profusely while addressing the venerable persons, sages and kings are *īśvara*, *prabho*, *mahātman*, *mahābhāga*, *mahābhāge*, *mahārāja*, *vibho*, *sādho* and *sādhvi*.

V. The *Qualificationary Terms*. These terms either indicate (A) the characterizing merit, divine or acquired by the person concerned, (B) the qualificationary

⁸ bhagavanto varir vācyā vidvaddevaṣṭilīṅginah |
vipramātyāgrajās cāryā naṭisūtrabhṛtau mithah ||
rathisūtena cāyusmān pūjyaiḥ śiṣyātmajanūjāh |
vatseti tātaḥ pūjyo'pi sugṛhitābhidhas tu taiḥ ||
Daśarūpa, II 100—102.

⁹ It is interesting to note here that when any junior offers salutation to the elder and high persons, the latter confer blessing on the first by the expression '*āyusmān bhava*.'

titles, (C) the respective episodes which give these names to them, (D) the characteristic food of the person.

(A) The terms *śvatattvajña* and *hayakovidā* are significantly applied to Nala, who was thoroughly acquainted with the nature of horses. It was his characteristic merit. The term, *lokabhāvana* as applied to Agastya, clearly reveals his divine power of purifying the people, as his very name suggests. The same term as applied to Kṛṣṇa, suggests to us the tendency of epic-philosophy in identifying Kṛṣṇa with Viṣṇu vested with the powers of creating the world.

Similarly the great divine prowess of having knowledge of the three worlds, as acquired by Vyādha, is known to us in his epithet *lokavṛttāntatattvajña*, applied to him.¹⁰

(B) Secondly the terms *adhipa*, *īśvara* and others when compounded with some noun, denote the qualificationary titles e.g. *tridaśadhīpa*, *tridaśeśvara* and *devarāja* refer to Indra, as the lord of gods; *dhanādhipa* and *dhanēśvara* refer to Kubera who was in charge of celestial treasures, *nadanādīpate* qualifies the ocean as being a husband of the rivers, small and great. And *niṣadhādhipa* and *niṣadheśvara* qualify Nala, as the king of Niṣadha country.

(C) We have a third group of qualificationary terms which is far more important than the preceding ones. They imply the respective episodes in their lives.

The epithet *niḷagrīva* of Śiva, refers to the incident of Śiva's swallowing the poison (*hālāhala*) produced at the churning of the ocean.

The term *dānavasūdana* alludes to the famous fight of Indra with the demon Vṛtra.

The term *balavṛtranīṣūdana*, meaning 'the destroyer of the demons Bala and Vṛtra,' refers to the slaughter of the demons Bala and Vṛtra in their respective fights.

The word *pākaśāsana*, is an epithet of Indra who got this name after his having killed the demon Pāka.

The adjectives, *bhaganetranipātana* and *bhaganetrahān* are the epithets of Śiva, who destroyed the eyes of Aditya, who presided over love and marriage.

The term *bhūridakṣiṇa* generally refers to kings, who offered liberal rewards to the brāhmaṇas in the sacrifice. Here it may allude to Yudhiṣṭhira's having bestowed rich presents liberally on the brāhmaṇas in the Rājasūya sacrifice.

Viṣṇu received the appellation *madhusūdana* because he killed the demon Madhu.

Indra is popularly known as *vṛtrahan* for he killed Vṛtra, in his famous fight with Vṛtra, a demon of darkness or draught.

The word *śatakrato* is a necessary qualification of Indra, who has to perform hundred Aśvamedha sacrifices, elevating the sacrificer to the rank of Indra.

The adjective *satyapratījña* is an epithet of Daśaratha, the father of the hero of the Rāmāyaṇa. It refers to the fulfilment of his promises, given to his wife Kaikeyī, whereby he sent Rāma on exile for fourteen years and enthroned Bharata on the kingdom. He is significantly called *satyapratījña* because he fulfilled his vow even at the cost of his life.

(D) We have noted only two qualificationary epithets, which signify the favourable food of those persons concerned.

The first *somaṇḍināu*, which is an epithet of Aśvins, who fed themselves on soma i.e. sacrificial drink, chiefly. In Vedas they are represented as having swallowed soma voraciously.

The second is *hutāśana*, the sacrificial fire and later any fire, which consumed an oblation offered in it. Thus the epithet is appropriate.

¹¹ This idea is very common in Sanskrit literature.

VI. *Symbolic Epithets.* Really the terms *kapardin śuladhṛk*, and *vṛṣabhadhvaja*, all referring to Śiva, can be included under qualificationary epithets. But we have grouped them under a separate category of symbolic epithets inasmuch as they denote prominently the emblems of Śiva.

Śiva is characterised by his wearing braided and knotted hair and so is a singular epithet of Śiva.

Again he has a bull for an emblem and so he is styled as *vṛṣabhadhvaja*.

Śiva's distinguished weapon is *śula* i.e. spear and so he is always referred to as a holder of spear. In fact *śula* refers specially to the trident of Śiva.

VII. *Terms of Reproach.* As we have one type of terms expressive of reverence, the terms of reproach also can be grouped together. They are *adhama*, *anāryakarmān*, *kulapāmsane*, *krūra*, *mūḍha*, *manda*, *mandātman*, *durmate*, *duṣprajña*, *narādhama*, *pāpa*, *mūḍhasattva*, *rājāpasada*, *sudurbuddhe*, *strikāmuka*. These also remind us of the particular incidents (or to be more exact one's nature, which has been exhibited on a particular occasion) for which he is reproached e.g. Jayadratha is reprimanded by the terms *adhama*, *mūḍha*, *mūḍhasattva*, *durmate* and *strikāmuka*, for his attempt of abducting Draupadī in the absence of Iṅḍavas. Next Keśin is referred to as *anāryakarmān* i.e. doing work unbecoming an Ārya (or becoming only a non-Āryan) because he tried to carry away Devasenā, the daughter of Prajāpati, forcibly and was consequently slain by Indra. Kaikeyī is addressed by the term *kulapāmsane*, a woman disgracing her family, as she made Daśaratha send innocent and guileless Rāma, on exile by demanding the two boons, promised by Daśaratha to her in early years and who thus was an indirect cause of the death of King Daśaratha.

The term *pāpa* as applied to a brāhmaṇa, alludes to his committing a sin in shooting a sage. The sage Agastya curses Kubera, addressing him as *durmate* because he witnessed the wicked act of *dharṣaṇā* of his friend Maṇimān, done to Agastya. The demon Jaṭāsura, who was too much given to wicked and crooked thinking, is appropriately called *duṣprajña*. The king Puṣkara is termed as *narādhama* and *rājāpasada*, the vilest of the most degraded king, because he adopted foul means in depriving the king Nala of his kingdom and riches in the game of dice. The Akṣa (in the game of dice) called Nala by the term *sudurbuddhe* inasmuch as he could not gauge even a simple thing, that they had assumed the form of birds.

VIII. *Ironical Terms.* Quite akin to the previous group of terms, are those used in an ironical sense. We have noticed only two of this type. *Mahāratha*, originally means 'a great warrior or a hero.' Draupadī appeals to Jayadratha, who was trying to carry her away, by addressing him by the term *mahāratha*. She reminds him thereby of his heroic power which is to be properly exhibited on the battle-front and not to be paraded to a helpless woman whose husbands are absent on the scene. One clearly sees thus that this term contains a sly fling towards Jayadratha. Another term, similarly used is *satyasandha* addressed to Nala by Damayantī. It is natural to take this epithet as conveying an ironical sense, because Nala had promised Damayantī that he would never desert her under any circumstances. But what he actually did was that in spite of his promise to Damayantī, he left her all alone in a fierce forest abounding in cruel beasts of prey.

IX. *Mythological Terms.* Next we find two epithets containing mythological references regarding the previous birth of Arjuna. We have styled these as 'Mythological Terms' e.g. Arjuna is addressed by the terms *pūrvadeva* and *sanātana* both of which allude to his being an incarnation of Nara in Nara-Nārāyaṇa avatāra.

X. *Terms referring to Bodily Peculiarities.*¹¹

¹¹ For the detailed study of this topic, see my paper on 'Epic and Classical Conception of Beauty' which is ready for the press.

Some terms, we have noticed, containing references to bodily peculiarity of one or the other sort. They are mostly *bahuvrīhi* compounds with *upameya* as their first member and *upamāna*, the second member. They refer to the general grace of a female beauty or to various limbs or parts of a bodily form as they occur in the expressions, containing similes. The following are some—*anavadyāṅgi*, *asitekṣṇa*, *āyatekṣaṇa*, *kanakaprabha*, *kamalaprakāṣa*, *kamalāyalākṣi*, *gajaśāmini*, *pundarikākṣa*, *puṣkarekṣaṇa*, *pythulāmṛākṣa*, *pythulocana*, *mitabhāṣiṇi*, *mṛgaśāvākṣi*, *raktāntalocana*, *rājivalocana*, *varānane*, *vāmoru*, *vipulaśroṇi*, *viśālākṣi*, *vṛkodara*, *śucismile*, *śubhātāmṛākṣi*, *śubheṣaṇe*, *sarvānavadyāṅgi*, *śimhoraska*, *sukeśi*, *sugātri*, *subhru*, *sumadh-yame*, *sulocana*, *suśobhane*, *suśroṇi*, *susmile*, *harilocana* and *hiraṇyavarṇa*.

XI. *Etymological Terms*.¹² The following are terms, the etymological sense of which is chiefly predominant. It, of course, refers to some singular quality, possessed by the person or the thing e.g. *Sūrya* is called *khaga*, *khecacrottama*, *gopate*, *tigmarāśme*, *tigmāṁso*, *bhūmanan*, *bhāskara*, *vibhāvaso*, *sarvatamopaha*, because he traverses through the sky and being self-luminous, expels darkness from the world and bathes the universe with his light. *Agni* also possesses this celestial lustre, whereby it destroys darkness and so it is also styled as *vibhāvaso* and *tamonuda*. The terms *dvārapate* and *dvāṁśtha*, as their *etymology* suggests, refer to the door-keeper, who has to stand at the gates of palaces and so is rightly called as the 'governor of the gates.' *Arjuna* has several names like *dhanañjaya*, *phalguna*, *bibhatsu*, *savyasācin* and others¹² because of various circumstances in his life. The etymological meaning of those words clearly brings out the significance of these names. Similarly the etymology of *nārāyaṇa* and *hṛīkeśa* points out why *Kṛṣṇa* received these names. In this way the term *maghavan* refers to *Indra*, *bhujamgama* to *Ājagara*, and *śokāpanuda* to the *Aśoka* tree.

XII. *Abbreviations*. We have noticed the following abbreviations of some names. These abbreviations are psychological and are generally used for the sake of convenience by the speaker and denote the intimate relations existing between the speaker and the person addressed. In familiar usage of everyday speech we find some such abbreviation of names e.g. *Avi* for *Avināśa*, *Madhu* for *Madhusūdana*, *Līle* for *Lilāvati* and *Śaku* for *Śakuntalā* etc. In *Vanaparvan* we have the following—*Koṭi* for *Kiṭikāśya*, *Rāma* for *Paraśurāma* and *Balarāma*, *Satye* for *Satyabhāmā*.

XIII. *Descriptive Terms*. Next we have put the following, under the category of descriptive terms. These are expressions of two words rather than terms, the first word of which is always in the genitive case meaning 'among' and the second word is generally '*vara* or *variṣṭha*'. They describe the status of persons which they occupy in the society or among the people of their class. These are—*janakānām variṣṭha*, *jayatām vara*, *tapatām vara*, *dadatām vara*, *dānavānām niśūdana*, *dvi-padām vara*, *dharmaabhṛtām vara*, *dharmabhṛtām śreṣṭha*, *dharmavidām vara*, *praśnavidām vara*, *praśnavidām śreṣṭha*, *priyām priya*, *balavatām vara*, *balinām vara*, *buddhimatām vara*, *buddhimatām śreṣṭha*, *brahmadevidām vara*, *bharatānām kulod-vaha*, *yudām vara*, *vadatām vara*, *vadatām śreṣṭha*, *viduṣām śreṣṭha*, *viśām pate*, *śas-trabhṛtām vara*, *śas-trabhṛtām śreṣṭha*, *śāmyatām śreṣṭha*, *satyabhṛtām vara*, *saṁdhi-vidām śreṣṭha*, *sarvadharmabhṛtām vara*, *sarvadharmabhṛtām śreṣṭha*, *sukṛtīnām vara*.

XIV. *Miscellaneous*. Lastly remains a large group of terms which are of an unclassifiable nature. It is this group which sheds a considerable light on epic style. The major portion of them are mere synonyms and so are easily transferrable from one person or thing to the other. e.g.

¹² For the etymology of these words see my paper on 'Epic and paurāṇic etymologies' in which I have shown how the texts themselves try to give the etymologies of certain words, though some of them are fantastic in nature; a paper which will be published soon.

anagha—apāpa ;
 amarasarṅkāśa—amaropama ;
 amitrakarṣana—amitrāghna—amitratāpana—amitrahan ;
 arikarṣaṇa—arinibarhaṇa—arindama—arimardana—arisūdana ;
 cārudarṣane—cārurūpe—cārusarvāṅgi ;
 kurukulodvaha—kurupuṅgava—kurupravīra—kuruvaraśreṣṭha—
 kuruśārdūla—kuruśreṣṭha—kurusattama—kurūtama—kurūdava ;
 kaurava—kauravaśārdūla—kauravendra ;
 kṣatriyapuṅgava—kṣatriyaśabha—kṣatriyaśreṣṭha ;
 dvija—drijapuṅgava—dvijāśabha—dvijavarottama—dvijaśreṣṭha—
 dvijasattama—dvijāgiya—dvijottama ;
 narapuṅgava—naraśabha—naravarya—naravaraśreṣṭha—
 naravīra—naravyāghra—naraśārdūla—naraśreṣṭha—narasattama—
 narendra—nareśvara—narottama ;
 śatrukarṣaṇa—śatrughna—śatrutāpana—śatruṇiśūdana—śatrusūdana—śatruhan ;

No purpose will be served in multiplying the instances. Suffice to say that *ṛṣabha*, *puṅgava*, *vyāghra*, *śārdūla*, *śreṣṭha*, *sattama*, etc. if compounded to the same noun convey the same sense.

Secondly we have noticed certain epithets, each of which is applied indiscriminately to a number of persons. It is these and the previous two groups, which provide a ground for the phenomenon of 'transfers of epithet' which is very common and are found between each of the three genders, and numbers and almost every two of the eight cases e.g. the epithet *anagha* refers to as many as *twenty-four* different persons ; tapodhana—8 ; durdharṣa—6 ; devī—7 ; dharmajña—12 ; nrpa—14 ; nrpate—7 ; prabho—18 ; mahādhyute—9 ; mahāprājña—8 ; mahābala—5 ; mahābāho—20 ; mahābhāga—8 ; mahāmate—8 ; mahārāja—14 ; rājan—29 ; rājendra—12 ; vibho—15 ; vīra—17 ; suvrata—9 ; etc. etc.

Now if we look to the material presented below from a different point of view i.e. from the point of the variants recorded in brackets, two points strike us prominently. They indicate the nature of the variants and reveal the psychology of the scribes and redactors of those manuscripts, and moreover point out unmistakingly the groups of MSS or versions, which favour some particular readings and discard the others.

(a) First, the variants clearly indicate that one or the other synonymous word is used for the reading of the critical text, e.g. :

abhibho—avibho, prabho, vibho ;
 amitrāghna—śatrughna ;
 arikarṣana—arimardana ;
 arindama—arimardana ;
 janādhipa—narādhipa ;
 dharmajña—dharmātman ;
 naravyāghra—naraśreṣṭha ;
 naraśreṣṭha—naravyāghra ;
 narādhipa—janādhipa ;
 nareśvara—janeśvara ;
 prthivīpate—mahīpate ;
 prthivīpāla—mahīpāla ;
 prabho—abhibho, vibho ;
 manujādhipa—manujarṣabha, narādhipa ;
 mahābāho—mahābhāga ;

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mahābhāga—mahābāho ;
mahīpate—viśāṁ pate ;
vibho—prabho ;
viśāṁ pate—mahīpate.

(b) Another set of variants serves as a mere gloss of the reading of the text, e.g.—vāsava—kauśika.

(c) Some variants are phonetic in character, e.g. amitrakarṣana < amitra-
karṣaṇa ; pārīkṣita < pārīkṣita ; phalguna < phalguṇa, phālguna ; bhāmini < bhāvini ;
rājāpasada < rājāpaśada ; śatrukarṣana < śatrukarṣaṇa.

(d) Lastly we have noted some variants which are favoured by a particular version, e.g. :

(a) Variants favoured by the Northern Version are—kurukulaśreṣṭha,
kaunteya, dvijavarātmaja, dharmajña, puruṣaśārdūla, phālguna,
bharatarṣabha, bhāvini, manasvini, mahāmate, śatrukarṣaṇa.

(b) Variants favoured by the Southern Version are —kurunandana, dvija-
varottama, naraśārdūla, bhāmini, manujarṣabha, mahādyute,
yaśasvini, rājāpasada, rājendra, vibho, viśāṁ pate.

APPENDIX

aṅga—Aṣṭāvakra (dvārapāla) 133.8c.

aṅgane—Kuntī 290.14d.

—Sītā 281.43a.

acalaśreṣṭha—parvata 61.39a ; 61.48c ;
61.50c (Ś1 K1 nagaśreṣṭha).

acyuta—Kṛṣṇa, 13.33d ; 56*.1.

—Parikṣita, 190.34b.

—Yudhiṣṭhira, 23.16d ; 28.20b ; 33.48d ;
49.23b ; 49.38b ; 189.16b ; 275.4d.

ajātaśatro—Bhīma, 35.8b.

—Yudhiṣṭhira, 6.12b ; 6.15a ; 172.22a.

atibhīmaparākrama—Bhīma, 145.2b
(TG1-4 M1 bhīmaparākrama ;
Ś1 K1.2 ativīrya°).

ativādimānin—bandī, 134.2a.

adinasattva—Sātyaki, 120.22b.

adrirāja—Mandara, 43.24a.

adhama—Jayadratha, 252.19d (Ś1 K1
nṛpādhama).

anagha—Arjūmat, 196.8b ; 107.25d.

—Arjuna, 147*.1 ; 40.53b ; 181*.1 ;
163.7b ; 164.5c ; 168.17d ; 171.12d.

—Indrajit, 272.5b ; 272.6b.

—Karma, 285.13b ; 294.4b.

—Kuntibhoja, 287.7d ; 288.6b.

—Kṛṣṇa, 63*.1.

—Kauśika, 197.23d ; 197.28b ; 198.15d ;
205.21d.

—Janamejaya, 39.9b (K2 Dc1 D5 ma-
hānagha) ; 80.5d ; 145.36b.

—Duryodhana, 240.7b [S (except G3)
nṛpa].

—Nala 211*.1 ; 52.19d ; 53.14d (K1
nala) ; 61.18b ; 326*.1.

—Nārada, 80.9b.

—Bāla, 186.127b.

—Bhīma, 684*.2 ; 147.16b ; 147.39b ;
149.8d.

—Bhīṣma, 80.23b ; 80.24d.

—Manu, 916*.2.

—Mārkaṇḍeya, 187.36d ; 196.6d.

—Yudhiṣṭhira, 16.17d ; 49.36b (TG
nṛpa) ; 81.106d ; 427*.1 (G4 M2
tapodhana) ; 85.8b (Ś1 KDn
D1-3.5 M2 nṛpa) ; 88.4b ; 121.14b
[K3 B2-4 D (except D1-3) acyu-
ta ; T2 G2.3 nṛpa] ; 135.15d ;
144.24c ; 829*.3 ; 163.32f [B D
(except D1-3) M me nṛpa (B4

śṛṇu) ; T1 vai nṛpa ; T2 G1.3.4
bhārata] ; 177.6d ; 186.44f (D1.2
bhārata) ; 189.18b (G1 nṛpa) ;
189.26b ; 213.1b ; 298.10b ;
298.11b.

—Lomaśa, 612*.

—Vidura, 7.18d.

—Vaiśampāyana, 772*.3.

—Vyādhya, 205.16d.

—Śaṅkara, 81.110d.

—Satyavat, 281.79d (K4 vibho).

—Hanumat, 725*.

anaghāḥ—tāpasas.

—devas, 165.17f.

anaghe—Kuntī, 287.29a.

anavadyāṅgi—Kuntī, 287.21c ; 290.25d.

—Damayantī, 53.7c.

—Draupadi, 69*.

—Sukanyā, 123.7c (D5 śubhe).

Anāryakarma—Keśi (Indra) 213.10a
(K2.3 B4 °karma, T2 G1 M2
°karmā).

Anindita—Kauśika, 197.42b (D3 māna-
da ; D5 bho dvija ; T1 arimdamā) ;
205.7d (G1 atandrita).

—Bāla, 286.126b.

anindite—keśinī, 72.2d ; 72.4d.

—Damayantī 58.17b ; 58.29d ; 61.69d
(B2 Dc Dn2 D4.6 śucismite) ;
61.115d (B2 varāṅgane).

—Devasenā, 213.22d.

—Draupadi, 32.23d.

—Sāvitṛī, 281.25d ; 281.27d.

—Sītā, 264.58d (K4 B1-3 Dn D3.4.6
G1.3 M1 nandini).

—Hidimbā, 13.88d (D3 nandike ; Ś1
D1.2 śobhane).

anindye—wife of Dala, 190.80d.

apāpa—Rṣyaśṛṅga ; 133.3d.

aprameyāḥ—Daśārṇavīras, 120.28c.

Abale—Sāvitṛī, 281.45b.

abhibho—Janamejaya, 146.41b (Ś1 avi-
bho).

—Bhīma, 141.4b (B2.3.4m Dn D4-6
vibho).

—Manu, 185.32b (K3 D5 T1 mahā-
mune ; B1-3 Dc Dn D4.6 vibho).

—Yudhiṣṭhira ; 88.13d ; 131.25d (Ś1
K3.4 avibho ; B Dc Dn D6 vibho ;
D3 prabho ; D4 samaprabho).

amaraprabha—Nala, 58.32d (K2 B Dn D4-6 amaropama, G1 amalaprabha; K1 mánada, D2.3 prabho; M1 naiśadha).

—Rāma, 275.34d (K1.2 °prabho).

amaraprabhe—Damayanti, 62.24d (D1.3 °r̥ṣabhe).

amarasamkāśa—Ghaṭotkaca, 153.17c.

amaropama—Yudhiṣṭhira, 298.14d (M amarottama).

amitrakarśana—Bhīma, 147.26b (Ś1 K1-3 B Dn D4.6 G1 °karśana).

—Yudhiṣṭhira, 33.3b (Ś1 B D5 °karśana); 102.13b [B (except B2.4) °karśana]; 125.19b (Ś1 K1-3 B D1 °karśana).

—Vibhiṣaṇa, 259.31b (K1.2 B1.2.4 D1.5 °karśana).

amitragna—Indrajit, 272.2c; 272.4c.

—Yudhiṣṭhira, 37.23c (Dc śatrughna).

amitratāpanāḥ—Pāṇḍavaś, 159.27b Ś1 K1-3 B4 D1-3.5 °karśanāḥ).

amitavikrama—Pulastya, 80.28b (K2 Dn amarasamibha).

—Bhīma, 747*2.

—Yudhiṣṭhira, 640* ; 135.23d; 247.46b.

amitrāhan—Kṛṣṇa, 23.22d.

—Yudhiṣṭhira, 170.39f.

arīkarśana—Arjuna, 42.21f (K4 arimardana).

—Nala, 61.23d.

—Yudhiṣṭhira, 109.6b (Ś1 K1-3 B D1 °karśana; T2 G2-4 bharatarśabha)

arinibarhaṇa—Nala, 77.12f (K1 Dn D5 mahābhujā).

arīmdama—Arjuna, 38.8f; 41.6d; 42.37b; 163.6m; 163.7d.

—Rūpama, 68.23b.

—Kumbhakarna, 270.26d.

—Janamejaya, 160.1b; 242.21b.

—Duryodhana, 241.15d (B2 G1 anindita); 241.22d.

—Bāla, 186.127d (K3 D5 anindita).

—Bhīma, 147.23b; 738*1; 148.38b; 155.87d; 176.11b.

—Yudhiṣṭhira, 128*1; 36.10b [S (except M2) nr̥pa]; 45.33d; 49.18b; 49.24b; 74.14b; 79.29b; 80.88d; 80.117b; 89.20b (K3 anindita; M1 acyuta); 130.6b; 130.10b [K3.4 pārthivasattama]; 137.5d; 164.18d; 164.44d (B2-4 Dc Dn 44.6 arimardana); 185.20b; 185.34f.

—Rāma, 266.51d; 273.9d.

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—Yudhiṣṭhira, 163.9b.

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—Pradyumna (sūta), 19.9a; 20.3a.

—Yudhiṣṭhira (Nahuṣa), 172.25c; 178.18a.

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—Indra (Nārada), 51.14b.

—Nala (Damayanti), 53.2d; 60.7d.

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—Damayanti, 52.21c; 224*3; 61.69c; 61.87a; 61.90c; 61.113a; 61.114c; 61.116c; 61.121d; 62.35a.

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- Yudhiṣṭhira, 18.9d ; 23.3b ; 81.133b ; 188.60d ; 208.1b.
- kurunandana—Arjuna, 42.19f ; 172.19d.
- Janamejaya, 93.27d.
- Duryodhana, 235.22b ; 236.10b.
- Dhṛtarāṣṭra, 11.17b.
- Bhīma, 147.40b (K4 G1 M puruṣa-rṣabha ; B2 bharatarṣabha) ; 232.15d.
- Bhīṣma, 80.42d (Dc bharatarṣabha ; M1 puruṣarṣabha).
- Yudhiṣṭhira, 14.11d [K2 B1.3.4 D (except D1-3) kuruvardhana ; B2 mānavardhana], 15.15d ; 22.17b ; 34.42d ; 34.77b ; 70.16b ; 72.23b ; 73.21f (K3 °sattama ; G1 °puṅgava) ; 80.84b ; 80.123b ; 81.63b ; 82.66b ; 83.9b (B D4.6 °puṅgava) ; 83.15b (Ś1 K1 B D4.6 bharatarṣabha ; D3 narapuṅgava) ; 83.79d ; 83.82d ; 83.100d ; 89.12b ; 90.9b ; 128.5d ; 129.8b ; 163.11d (Ś1 K1.2 °sattama) ; 181.12d [B D (except D1-3.5) °sattama ; G1 puruṣarṣabha] ; 185.44d [Ś1 K D1-3.5 M2 kunti-° : T1 G1.2.4 M2 kaurava- (G4 M2 kaunteya-) nandana] ; 261.13d (G1.4 kulananandana).
- kurupuṅgava—yudhiṣṭhira, 81.59b (Ś1 K2 Dn D5 nara° ; K1 B2.4 D3.4.6 T1 bharatarṣabha ; K4 Dc M1 °nandana ; G4 °sattama).
- kurupravira—Yudhiṣṭhira, 190.82b.
- kururāja—Yudhiṣṭhira, 173.7a.
- kuruvareśreṣṭha—Yudhiṣṭhira, 80.88c (K4 D1.2 S °kula°) ; 80.93a (K4 D1.2 T1 G1 °kula° ; B D3.4.6 kuruśreṣṭha) ; 82.28c [K4 D1.2.5 °kula° ; S (except M2) bharataśreṣṭha].
- kuruśārdūla—Yudhiṣṭhira, 16.10a [T1 G (except G3) M1 rāja°] ; 83.97a ; 83.108c (Ś1 K1.2 bharata° ; B1.2 Dn D5 rāra°) ; 276.12a (B2.4 Dn D4.6 G3 kuruśreṣṭha).
- kuruśreṣṭha—Duryodhana, 240.15e ; 241.21c.
- Bhīma, 147.10c [BD (except D1-3) nara°] ; 149.22a ; 150.4c (K4 nara-vyāghra).
- Bhīṣma, 80.24c.
- Yudhiṣṭhira, 14.15a ; 16.16a (M1 kauravya), 27.6c ; 83.62a (Ś1 K1.2 dharmajña ; K4 B2 D1-3 °naraśreṣṭha ; Dn D5 T2 G2-4 rājendra) ; 464*.3 ; 87.14c ; 109.18c ; 560*.2 ; 563*.5 ; 630*.7 ; 156.8c.
- kurusattama—Janamejaya, 1358*.7 ; 295.16d (Dc1 °nandana).
- Duryodhana, 240.13b.
- Bhīma, 158.45d.
- Yudhiṣṭhira, 28.9b ; 827*.4 ; 829*.2 (B2 Dn D4.6 °nandana).
- kurūtama—Yudhiṣṭhira, 214.15b (K3.4 B3.4 Dc Dn3 D1-3.5 M °dvaha).
- kurūdvaha—Arjuna, 164.30f (T2 G2-4 M kaunteya) ; 164.39b ; 165.4d (K3.4 D1.2.5 kulodvaha).
- Bhīma, 141.2d (B Dn D4.6 vṛkodara).
- Yudhiṣṭhira, 81.6b ; 81.17b (K1.2 Dn D5 narādhipa) ; 81.34b ; 81.41b (B D4.6 narādhipa) ; 81.83d (B1.4 D3 M1 Yudhiṣṭhira ; B2.3 D4.6 nareśvara) ; 81.92b ; 81.144b ; 81.148b ; 81.162b (Ś1 K1.2 B2 Dn D5 narādhipa) ; 419*.1 ; 82.134d (K2 Dn D5 narādhipa) ; 574*.7 ; 128.19d.
- kurūdvahāḥ—Pāṇḍavas, 298.18b (D5 T2 G2.4 kurūdvaha).
- kulanandini—Sāvitṛī, 281.55b [Dc2 D2 °varṇini ; T2 (m as in text) varavarṇini].
- kulapārṣane—Kaikēyī, 261.33b.
- krūra—Vyādha (muni), 205.29c.
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- keśava—Kṛṣṇa, 13.15b ; 13.18d ; 66*.2 ; 22.12c ; 23.22b ; 48.29b ; 180.37a ; 180.38d ; 894*.2 ; 194.25b.
- keśavanandana—Pradyumna, 19.7d ; 20.5d.
- koṭika—Koṭikāśya, 248.16d.
- kaunteya—Arjuna, 38.18e ; 38.20c ; 38.24e ; 145* ; 153*.32 ; 38.44c ; 42.21e (Ś1 K1.3 Dc D1-3.5 dharmajña ; K4 durdharṣa) ; 42.27c ; 45.6c ; 45.7c ; 163.45a ; 165.11c (Ś1 K D1-3.5 pārtha) ; 165.20a ; 170.69a ; 869* ; 172.2c ; 296.26a.
- Bhīma, 49.28a ; 141.2a ; 141.3c ; 148.32c ; 149.37a ; 150.7b ; 153.26d ; 155.87c.

- Yudhiṣṭhira, 2.77a; 17.19a; 17.29a [B D (except D1-3, D6 om.) kauravya]; 20.1a; 21.36c; 22.25c; 23.26a; 27.9c; 33.22c; 34.55c (K1.2 B2 Dn D4.6 kauravya); 34.63c; 34.82c; 34.85c; 36.3a; 36.22c; 37.31a; 50.16c; 51.25a; 69.3a; 77.1a; 78.15c; 85.17a; 86.10b; 88.30a; 466*3; 89.5a; 90.13c; 92.11c; 97.14b; 109.13a; 109.14c; 109.18a; 114.4a; 114.17c (B2-4 Dn D1.2.4.6 rājendra); 114.19a; 563*6 (K1.2 kauravya); 121.18a; 121.19c; 125.16a (B Dc Dn D4.6 rājendra); 125.23c (D1.2 M2 rājendra), 611*; 129.4a; 129.11c; 630*6; 129.21c; 639*2; 131.25c (D1.2 rājendra); 649*1; 134.39a; 135.7c (B4 rājendra); 135.8c; 138.1a; 139.3b; 140.1d; 675*2; 140.9c; 140.11a; 141.22c; 141.23c; 162.12c; 163.11a; 181.21a; 185.17e; 185.47c; 187.51c; 188.32a (K3.4 D1-3 kuruśreṣṭha); 247.44a; 297.12c; 297.23e (T2 G2.4 rājendra); 298.13c.
- kaurava—Arjuna, 42.38d.
- Janamejaya, 229.22c; 256.6d.
- Duryodhana, 239.2b; 240.23f (M2 pārthiva); 241.15b (Ś1 K1.2 D1 bhārata).
- Dhṛtarāṣṭra, 12.69d; 14.4b; 228.4b; M1 pārthiva).
- Yudhiṣṭhira, 15.18b; 16.20b; 17.9b; 27.9d; 63.24b; 91.3d [S (except M1) kurunandana]; 192.8d (M1 bhārata).
- kauravanandana—Janamejaya, 89.1b (T1 kauravya°); 94.4b.
- kauravaśārdūla—Janamejaya, 39.8c (K2 Dn D4.6 T2 G3 paura°).
- kauravaśreṣṭha—Duryodhana, 241.26e.
- Bhīma, 176.17c.
- Yudhiṣṭhira, 18.24c; 21.6a (K2 B2 Dn D4.6 T2 G3 bharataśreṣṭha); 194.1c.
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- kauravya—Janamejaya, 172.24a.
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- Dhṛtarāṣṭra, 5.6c; 10.17c.
- Yudhiṣṭhira, 14.10a; 14.14a (Ś1 K3 D1-3 T1 kaunteya); 15.16c; 75*; 15.17a; 16.15c; 17.7a (Ś1 D1.2 kaunteya); 18.13c 18.20a; [S (except M2) rājendra]; 19.11c; 21.24a [K2 B D (except D1-3) kaunteya]; 48.24a; 224*1; 83.90a (Ś1 K4 D1.2 kaunteya); 85.11a; 85.16c; 88.19a (Ś1 K1.2.4 Dc kaunteya); 90.11c; 96.1a; 97.2c; 195.18a; 213.1c; 219.30d.
- kauravyau—Duryodhana and Duḥśāsana, 238.34c (T1 kauravendra).
- kausika—Indra, 10.9d (B3.4 vāsava); 135.20d.
- kṣattar—Vidura, 7.15a; 12.1a.
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- kṣatriyaśreṣṭha—Yudhiṣṭhira, 159.3c.
- kṣitīśāh—kings, 190.75d.
- khaga—Ghaṭotkaca, 145.4d.
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- gajagāmini—Kuntī, 290.14b.
- gandharvasattama—Citrasena, 238.2b.
- gāndhāre—Duryodhana, 236.9a; 241.6a (M2 rājendra).
- gopate—Sūrya, 286.1b; 286.2d; 290.21c; 291.22d.
- cārudarśane—Damayanti, 66.12d (T1 G1 M2 cārulocane).
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- Nala, 61.12b (Ś1 G4 narādhipa; D2.3 prabho); 63.16b (B D4.6 S narādhipa).
- Yudhiṣṭhira, 62.11f (Ś1 K1-3 Dn D5 T G3 narādhipa); 91.11b (Ś1 K1.2 B2 Dc D3.5 T G3 narādhipa); 186.37b (Ś1 K1.2 D5 T1 narādhipa); 188.41b (Ś1 K1.2 B2.4 narādhipa); 214.1d; 1064*2; 217.14d (Ś1 K1-3 Dc D1-3.5 narādhipa); 218.35d (Ś1 narādhipa; T1 pārthiva); 219.33b.
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- Yudhiṣṭhira, 17.7b (T1 G1.2 bhāratarṣabha) ; 37.22d (K4 D1 bhārata°) ; 81.119b (Dc1 narottama ; Dc2 narādhīpa ; B1.3.4 bhārata-sattama ; B2 D4 bhārata°) ; 81.135b (T2 G2.4 bhārata°) ; 86.11b (K4 bhārata ; D4.6 narādhīpa ; K4 S bhārata° ; 135.3b.
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- Yudhiṣṭhira, 21.13a (S1 K3 D1-3 naraśreṣṭha ; M2 mahārāja ; 21.15a ; 22.19a ; 31.8a - (G2 °śreṣṭha) ; 80.76c [K2.4 Dc Dn D5 S (except M1) °śreṣṭha] ; 80.90c (B2-4 Dc1 D4.6 M1 °śreṣṭha) ; 80.122a ; 80.129a ; 80.132a ; 81.15e (K2.4 Dc Dn D5 °śreṣṭha) ; 81.23a ; 81.50c ; 81.52c ; 81.84c ; 81.88e ; 81.95a (K2 Dn D5 rājendra) ; 81.118c ; 81.121c ; 81.136c (S1 K1-3 B2 Dn D1.2.5 naraśreṣṭha) ; 81.8c ; 82.22e (D1 mahaprājña ; T2 G2.3 mahārāja) ; 178.21a ; 186.41c ; 186.46c ; 186.107a ; 186.115c.
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- Duryodhana, 243.10c (G1 bhārataśreṣṭha).
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- Bhagīratha, 107.15c (Dc muni° ; G2 nṛpati°).
- Yudhiṣṭhira, 15.2c [S (except M2) nṛpaśreṣṭha, K2 B D (except D1-3) kaurava (B2.3 bhārata)śreṣṭha ; K3 puruṣaśreṣṭha] ; 78.6c (B1.3 Dc D4.6 G1 M1 nṛpaśreṣṭha) ; 80.90a ; 80.95c ; 80.104a (K4 D1.2 rājan ; B2 M naravyāghra) ; 81.96a (B D 4.6 T1 G1 naravyāghra) ; 81.106a ; 81.129c ; 81.131a (S1 K1.2 Dn D5 rājendra) ; 81.147c [D3 T1 G1 M1 kuruśreṣṭha ; K (K1 om.) B D (except D3) puruṣavyāghra (K4 D1.2 °śreṣṭha)] ; 82.9c (Dc naravyāghra) ; 82.34a (S1 K1 rājendra) ; 83.58a (Dn D5 M2 nṛpaśreṣṭha) ; 88.28c (S1 K1.2 kuruśreṣṭha) ;

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- Yudhiṣṭhira, 197.44d (D3.4 dvijasattama ; G1 muni°).
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- R̥tuparna, 69.9b ; 76.14b [B1 janārdana ; B2-4 D (except D1-3 ; D5 om.) T2 G3 janādhipa].
- Janamejaya, 1150* ; 243.20b.
- Duryodhana, 226.3d (K3.4 D1-3 janādhipa) ; 227.19b [T G1.2.4 M mahā (G1 °hī) bhujā] ; 227.23b T G2.4 M janādhipa ; G1 mahābhuj] ; 1144*.1.
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- narāśana—Jaṭāsura, 154.12d (T1 rāk-sasa).
- narendra—Kuntibhoja, 288.10c.
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- Yudhiṣṭhira, 24.10c ; 26.14b ; 26.15a ; 80.106a (Ś1 K1.2.4 B D rājan) ; 113.20d ; 113.24b ; 132.1c (Ś1 K1.2 D3 pāṇḍava) ; 173.13a ; 180.18b ; 180.32c ; 180.34a (K3.4 D5 narādhipa).
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- nareśvara—Janamejaya, 242.18d (G1.2.4 M jameśvara).
- Nala, 53.9b ; 53.11b ; 60.6b (B1 niśadheśvara) ; 61.17b.
- Bhima, 157.20b.
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- Yudhiṣṭhira, 51.5d ; 239*.1 ; 455*.2 ; 158.51b (Ś1 K1.2 janādhipa ; D5 narādhipa).
- narottama—Kuntibhoja, 288.4d.
- Nala, 51.29d (K4 B3 Dn2 nareśvara) ; 53.20b (K1 nareśvara, Dc nṛpottama) ; 61.25d.
- Bhima, 740* ; 176.16d [Ś1 K D1-3.5 paramāpate] ; B3 (m as in text) dvijottama].
- Yudhiṣṭhira, 382* (M1 narādhipa) ; 81.128b (Ś1 K1.2 Dn D5 kurūd-vaha ; K3 Dc D1.2 narādhipa ; B1.4 M1 yudhiṣṭhira) ; 455*.4 ; 845*.2 ; 186.30d (D5 narādhipa) ; 186.96b (Ś1 K D1-3.5 rājasattama ; B2 mānavottama ; B4 Dc2 narādhipa) ; 198.56d.
- Vyādha, 206.13d.
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- Yudhiṣṭhira (People), 24.8a.
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- niśadhādhipa—Nala, 61.26b (D2.3 manu-ḥ ; T1 G2.4 vasudhā°) ; 75.1d ; 76.11d (K1.2 Dn D1.2 T2 G2-4 vasudhādhipa).

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°kaṇṭha).
- nṛpa—Aśvapati, 278.4b.
—Uśinara, 131.23b (B Dn D4.6 nṛpot-
tama ; D1.2 T G3.4 narādhipa).
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—Janaka, 134.30b ; 134.35b.
—Janamejaya, 93.2b ; 114.2b ; 141.28d ;
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—Duryodhana, 226.14d ; 239.48c ;
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—Dyumatścna, 279.10d ; 283.6b.
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71.34d ; 75.22d ; 75.24d ; 81.122d ;
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dhipa) ; 82.93b ; 83.27f ; 83.34d ;
83.54b ; 83.57d ; 83.73f ; 83.94b ;
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anagha] ; 85.15d ; 91.7d ; 92.9f ;
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- nṛpaśreṣṭha—Janamejaya, 241.37c.
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—Sītā, 265.13a ; 275.11a.

—Sukanyā, 123.3c ; 599*.2 ; 123.18c.

bharatāpraviṇa—Bhīma, 35.18a.

bhārataraśabha—Arjuna, 13.40d ; 38.11b ; 150*.3 ; 153*.8 ; 153*.9 ; 153*.15 ; 153*.18 ; 163.20d ; 164.83d ; 856*.4 ; 171.13b.

—Janamejaya, 68* ; 23.50d ; 48.1d (K2 Dn D5 puruṣaraśabha) ; 93.23b ; 153.21d (S puruṣaraśabha ; K4 nṛpottama) ; 155.9b ; 159.25b ; 192.1b ; 240.31d (S1 K1.2 puruṣaraśabha) ; 243.6b ; 245.1d ; 1335*.6 ; 296.29b (T2 M2 puruṣaraśabha).

—Duryodhana, 8.8b ; 11.27b ; 241.23d (T2 G1 puruṣaraśabha).

—Bhīma, 149.24b (S1 K Dc D2.3.5 puruṣaraśabha) ; 149.43b (T G3.4 naraśabha) ; 157.19d ; 802*.2 ; 804*.

—Yudhiṣṭhira, 14.17b ; 15.2b (D3 T1 G2.3 puruṣaraśabha) ; 16.9b ; 18.1b ; 20.11b (B puruṣaraśabha) ; 21.10b ; 25.6b ; 33.5b ; 33.56d ; 34.9d ; 34.18b ; 48.22b ; 200* ; 74.6b (T1 G1 M2 kurunandana) ; 78.6d ; 356*.2 ; 80.52d ; 80.65b (K4 D1.2 bhāratasattama ; Dc puruṣar-

- ṣabha); 80.79f; 80.84d (Ś1 K1 kurusattama; K2 Dn D5 puruṣar-ṣabha); 80.86b; 80.88b; 80.94b; 80.110b; 80.112b; 80.122d; 81.20b; 81.132f; 81.153b; 82.22b [K4 D1.2 bharatasattama; S (except M2) bhārata]; 82.67f (M2 puruṣarṣabha); 82.81d; 82.83b; 82.104b; 82.117d (Ś1 K1.2 Dn D5 T1 puruṣarṣabha); 82.124b; 83.60b; 85.2b; 85.9d; 86.4b; 89.19b; 104.6d (Ś1 K2 pāṇḍunandana; M kurunandana); 105.1d; 105.9b; 106.40d [T (except T) G3 M1 vasudhā-hipa]; 110.1b; 114.8b; 116.30b; 575*.2; 140.2b; 158.44b (K D3 puruṣarṣabha; D1 naraṣabha); 163.29d; 166.16d; 168.15d. 170.26d (B2 Dc1 Dn D4.6 puru-ṣa°); 170.40d; 178.19b (T2 G3.4 mahābhāga; S naraṣattama); 182.21d (T1 G1 M1 rājasattama); 185.42b (T2 G2.3 narapuṅgava); 185.46b; 185.47d (K3 D5 ma- nuṣarṣabha; B4 manuḍādhipa; D3 manuḣśvara; T2 G1.3 puru- ṣarṣabha); 185.52d; 186.24b; 186.59d (M2 puruṣarṣabha); 188.9b; 189.27b (T1 G1 Kurusat- tama; 194.8f; 195.7d; 195.20f; 985*; 197.7b (G4 bhārata); 258.1b (K4 bhārata); 275.62d; 276.7f; 276.12b; 277.22b; 280.9b; 297.74d; 298.6d (G2 puruṣarṣabha).
- Vidura, 7.19b; 33*.3.
- bharatarṣabhāh—Pāṇḍavas, 156.20b.
- bharataśārdūla—Yudhiṣṭhira, 106.6c; 259.4c.
- bharataśreṣṭha—Arjuna, 170.9.
- Janamejaya, 79.8c (M1 bharataśār- dūla; 284.4c; 294.7c.
- Duryodhana, 243.9c.
- Yudhiṣṭhira, 14.12c; 15.4a; 16.2c; 16.7a; 16.18c; 17.12c; 21.7a; 23.1a; 66.21c; 80.121a; 86.7c; 99.3c; 104.8c; 1076*.1; 187.49c 187.49c (G4 puruṣaśreṣṭha); 188.53c; 195.28c (G2.4 puruṣaśre- ṣṭha); 196.14c; 213.41c; 261.26c.
- bharatasattama—Janamejaya, 192.23d (M varadasattama).
- Bhīma, 805*.2.
- Bhīṣma, 80.38b.
- Yudhiṣṭhira, 28.33b; 37.26b; 80.81b; 80.100d (B1 D3 nṛpatisattama; D2 bhārata°); 81.35b; 81.46d; 81.51b; 81.63f; 391*.1; 81.74b; 81.91b; 81.93b; 81.120b; 81.130b; 81.172b (M2 bharatarṣabha); 82.56f; 82.57b (Ś1 K Dc Dn D3.5 bharatarṣabha); 85.14d; 88.11d; 129.11b (K3.4 bharatarṣabha); 156.27d; 185.35f; 195.26b; 197.9d; 197.17b; 209.8d.
- bharatasattamāh—Pāṇḍavas, 156.21b.
- bharatānārṇ kulodvaha—Duryodhana, 240.1b.
- bhavati—brāhmaṇaśrī, 197.18a.
- bhānuman—Sūrya, 284.31b.
- bhāmini—Kuntī, 287.28b [B D (except Dc Dn2 D1.2) bhāvini]; 290.18d (B Dc Dn D2.4.6 G3 bhāvini); 290.26d (D5 bhāvini); 291.13b [B D (D1.3 missing) bhāvini]; 291.14b [B D (41.3 missing) bhā- vini].
- Keśinī, 72.8d (B D4.6 bhāvini); 73.3b [K2 B Dc1 Dn3 D4.5 bhā- vini (also bhāvinī)]; 73.4b (K2 B1.2.4 Dn D4.6 Keśinī; B3 Dc D5 bhāvini); 73.20d [B Dc Dn2 n3 D4-6 bhāvini (B2 Keśinī)].
- Damayantī, 60.29d [K2 B D (ex- cept D1-3) bhāvini]; 66.14b [B D (except D1.2.6) G1 bhāvini].
- Draupadī, 13.114d (B1.4 Dc Dn3 D4-6 bhāvini); 30.48d [K2.3 B D (D1.3 missing) G1 bhāvini]; 113*.1 (B Dc Dn D4 bhāvini); 32.33d (B Dc Dn D4-6 bhāvini); 224.14f [B D (except D1-3; D4 missing) bhāvini].
- Rādhā, 293.8b (B Dc Dn D2.4.6 G1 bhāvini).
- Savitṛī, 280.20b (B Dc Dn D2.4-6 G3 bhāvini); 281.30d (B3.4 Dc D2.5 bhāvini).
- Sitā, 265.15d (K2 B Dc2 Dn1.n3 D2-6 bhāvini).
- Sukanyā, 123.6d (B Dc Dn D3-6 bhāvini).
- bhārata—Arjuna, 13.40b; 38.4b; 38.25d (B3 pārthiva); 163.4b; 163.13b (K4 kulodvaha; B1.3 kurukulodvaha; Dc D5 M1 kurukulodvaha; T1 kurukulodbhava); 164.29b; 844°; 169.33b; 171.2b (G1 putraka);

- 171.11b; 171.15b; 172.18b;
233.16b; 296.26d.
- Karna, 228.17d.
- Janamejaya, 4*.1; 6.4d; 7.1d;
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42.2d; 93.2d; 93.7d; 93.17d
(D3.5 pāṇḍava); 93.21d; 114.3d;
118.1d; 621*.2; 143.9d; 143.21b;
146.58b; 150.2b; 150.19d; 153.30f;
154.52b; 157.43b; 808*; 158.32b;
161.16d; 162.2b; 172.3d; 176.46d;
180.39b; 972*.2; 228.1d; 229.12b;
229.16d; 1107*; 230.2d; 230.9b;
230.23b; 1110*.3; 233.2b; 233.9d;
233.21d; 238.32d (Ś1 mānada);
240.26b; 240.29d; 241.14d;
243.13b; 243.17b; 284.8d;
1335*.2; 289.10b; 1346*.1;
295.4d; 299.27d.
- Duryodhana, 226.2b; 235.21d;
236.12d; 236.14b; 1147*.1;
239.14d; 241.30d (K3 nṛpottama;
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- Duḥśāsana, 238.21d.
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12.25d; 12.41d; 12.74b; 228.18d.
- Bhīma, 35.1a; 35.10d; 37.3b; 37.4d;
37.10b; 373*.2; 141.25d; 149.18b;
149.24d; 150.7d (K1.2 B2 D5 su-
vrata); 749*; 232.18d; 296.33b.
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M1 kaurava); 15.5d; 18.23b;
21.20d; 21.25b; 21.34d; 84*;
22.10d; 22.26d; 23.4d; 23.8b;
28.7c; 28.13d; 31.3b; (K3 bha-
ratarāṣabha); 31.4b; 31.11d; 31.23b;
31.28d; 33.2b; 33.6b; 33.47b;
33.55b [S pāṇḍava (M2 catta-
ma)]; 34.8d; 34.79b; 34.84b;
37.23b; 48.25b; 49.21a; 50.6d;
51.1b; 52.1b; 54.10b; 54.13d;
54.22b; 54.25b; 54.25d [K2 B
(except B3) Dn D4.6 pāṇḍava;
K4 D1 M2 pārthiva]; 54.27d;
226*.1; 226*.6; 56.11b; 245*.2;
59.16b; 60.28d; 60.30d; 61.112d;
62.43d; 65.31d; 66.11b [B4 T2
G (except G1) viśāmpate];
71.16b; 71.21b; 72.29d; 73.23d;
75.16b (T2 G2.3 M1 viśāmpate);
360*.4; 80.11b; 80.17b; 80.53b;
80.85b (K4 D1-3 bharatarāṣabha);
80.113d; 387*.2; 388*.10;
80.120d; 80.125d; 81.4d; 81.47b
(B D3.4.6 pārthiva); 81.49d;
81.58d [S (except M1) bharatar-
āṣabha]; 81.64b; 81.65d; 81.68b;
81.73d; 81.80b; 81.117b; 81.124b;
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ratasattama); 82.13d (T2 G2-4
bharatarāṣabha); 82.15d; 82.17d
(Ś1 K1 Dc anagha); 82.43b;
82.46b; 82.55d; 82.56d; 82.64d
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bharatarāṣabha); 82.78d; 82.106d;
82.118b; 83.5b; 83.35d; 83.38d;
83.44d; 83.74b; 83.77d; 83.100b;
85.4b (Ś1 K1.2 bharatarāṣabha);
86.1b (K3.4 D1-3 pāṇḍava; T1
bharatarāṣabha); 86.1d (K3.4 B Dc
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va); 86.9d (Ś1 K1.2 nṛpa);
86.12d; 464*.4; 87.13b; 88.4d;
89.22b; 91.86; 92.7b (G2 pārthi-
va); 94.20d; 482*.1; 97.15f;
97.23d; 495*; 103.9d; 104.7b;
106.23d; 106.40f; 109.15d (Ś1 K
Dc D3.5 M1 bharatarāṣabha);
109.17b; 545*; 111.1d; 560*;
115.10d (T2 G3.4 pārthiva);
116.18b; 117.6d; 121.13b; 122.6d
(T1 G1 pārthiva); 125.12b (D1.2
prabho); 610*.1; 126.32b; 128.6d;
128.7b [N (except K2 Dc) pārthi-
va]; 129.11d; 129.17d; 630*.1;
630*.12; 130.1b; 130.11d; 130.18d;
135.13d; 135.14d (S bharatarāṣa-
bha); 135.23b; 137.2d; 137.5b;
137.13d; 139.7b; 139.15b; 140.1b;
140.10d; 141.8b; 141.9d; 141.21d;
144.6d; 154.26d; 156.22b; 158.54d
[B1-3 D (except D1-3.5 pārthiva);
159.2b; 159.21d (T1 M1 mānada);
160.22d; 160.37b [K4 S (except
G1) pāṇḍava)]; 163.27b; 164.1b;
164.3d (Ś1 D1.2 kaurava);
164.18b; 164.40d; 164.53d;
164.57b; 166.14d; 166.21b;
167.1b; 167.19d; 168.11d; 169.8d;
170.3d; 170.41d (D5 paramāpata);
170.49f; 171.9b; 173.12c; 173.13d;
178.2b; 899*; 921*; 186.44d;
186.59b; 186.60b; 186.74b;
186.76d; 186.90d; 186.94d;
188.37b; 189.7b; 192.8b; 979*.1;
195.34d; 196.18b; 197.1d; 202.1b;
203.1b; 207.18d; 209.17d; 210.4d;
212.23d; 244.5b (M1 Yudhiṣṭhi-
ra); 245.16d; 1234*.2; 261.8b;
263.26d; 266.31d; 274.8b; 1300*.1;

- 278.1d; 279.22d; 296.4b (G2.4 bharatarṣabha); 298.17d.
 —Vidura, 6.17b (T2 G3.4 M1 tāta)
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 —Cyavana, 596*.2; 125.3b; 125.5d.
 —Mārkaṇḍeya, 181.8d; 186.88d; 188.4c.
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 bhīru—Kuntī, 290.24d; 291.21c (G2.4 vāmoru).
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 —Dhātreyikā, 253.14c.
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 —Sāvitṛī, 281.105a.
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 bhujagottama—Ājagara, 177.32d (D5 bhujarṅgama).
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 —Yudhiṣṭhira, 282.2d (B Dc1 Dn D4.6 G3 bharatarṣabha; Dc2 D2 puru-ṣarṣabha).
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 —Yudhiṣṭhira, 45.33b; 91.4d (B3 bharatarṣabha); 100.12b; 100.16d [S (G1 missing) manujādhipa]; 105.8b (B1.3 G1 M manujottama; T1 °jādhipa); 185.39b.
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—Kṛṣṇa, 13.35d (K2.3 Dc2 Dn2.n3 D4.6 mahābala). 192.11f (S1 K1.2 jagatpate) ; 192.18d (G1 prajāpate).

—Nala, 61.14b.

—Bhārgava, 81.24f (B D4.6 mahāmate).

—Bhīma, 151.15d (K3 mahāpate ; B2.4, Dn D4.6 mahāmate) ; 176.24d.

—Yudhiṣṭhira, 676*.2 ; (B1 Dc viśārpate) ; 170.62d (M1 mahāmate).

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—Dhṛtarāṣṭra, 9.1a ; 9.7a (B1 mahābāho).

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—Yudhiṣṭhira, 977*.1 (K2 °prājña) ; 80.91a ; 82.22c.

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—Yudhiṣṭhira, 14.10c (D1 °bhāga ; D2 °rāja) ; 15.8a ; 15.22a (Dc mahārāja) ; 16.2a ; 17.28c ; 20.13c ; 22.9c ; 22.28a ; 34.59c ; 37.22a ; 202*.2 ; 421*.2 ; 446* ; 469* ; 91.12a ; 108.3a ; 129.20a (Dc2 G2 mahābhāga ; T2 G3.4 mahārāja) ; 154.24c ; 159.11c ; 882*.7 ; 885*.10 ; 189.25a (T2 G3 rājan) ; 1048* ; 245.12a (K4 mahāprājña ; D2.3 mahārāja) ; 276.1a (T1 mahāprājña).

—Lakṣmaṇa, 266.7c.

—Sūrya, 1344*.1.

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—Lomaśa, 126.1c [S (except G4 M2 brahman)].

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- Bhīṣma, 80.22c.
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 —Yudhiṣṭhira, 80.46a [Ś1 K (K3 missing) B3 D (except D4.6) mahārāja]; 80.47a (K1 mahārāja); 80.83a (D1.2.4.6 T1 G1 M2 mahārāja); 160.12c (T1 mahārāja); 160.23a (K1.2 mahābhāva; T1 M1 mahārāja); 194.10a (K3 D5 T2 G1-3 mahābāho); 209.25c (B4 mahārāja); 211.7a (Dc D1 °rāja); 1051*; 1091*.
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 —Kṛṣṇa, 16.1b [S (except M2) mahādhyute].
 —Janamejaya, 3.17d (B4 D1 G1.4 mahādhyute; G2 bhūpate).
 —Nala, 72.21b.
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 —Yudhiṣṭhira, 632*; 244.7b (Ś1 K Dc D1-3.5 T2 G1 mahipate; T1 viśāmpate).
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rājan); 81.3a; 81.100c; 82.124a;
85.13c; 87.9c; 465*.2; 88.15c (Ś1
K1.2 mahāvīra; T2 G3 mahāvīrya;
G2.4 mahārāja; M1 mahābāho);
89.21a; 130.4c; 159.4c; 184.1c
[G1.2 M1 (sup. lin. as in text)
dhīra; M2 rājan]; 185.34e;
186.116a (M2 rājan); 196.17c.

—Rāma, 147.37c; 1302*.1; 275.30a
K1.2 dhīra).

—Lakṣmaṇa, 1263*; 266.18c (G2.4
mahāvīra).

—Sūtaputra, 243.11c; 243.12c (T1 G1
mahāvīra).

—Skanda, 218.12c; 218.15a; 218.16a.

—Hanumat, 148.3c; 149.14a.

vīrau—Madhukaitabha, 194.21a.

vṛkodara—Bhīma, 37.18b; 141.1d;
142.5d; 142.7d; 142.8d; 142.9d;
142.25b; 152.5b; 155.70d; 158.46f,
232.2b (M1 mahāmate); 232.10d;
232.14b; 232.18b (M1 puruṣarṣa-
bha).

vṛtrahan—Indra, 169.31d [N (except K4
D1-3) śatruhan].

vṛṣabhadhvaja—Śaṅkara, 41.7b

vṛṣpikulaśreṣṭha—Kṛṣṇa, 23.24c.

vṛṣṇinandana—Kṛṣṇa, 15.1b; 22.13b.

vedavittama—brāhmaṇa, 289.15b (K4
dvijasattama).

vaicitravīrya—Dhṛtarāṣṭra, 10.4a.

vaidarbhi—Damayanti, 65.27a.

vaidehi—Sitā, 264.71a; 275.10c.

śakra—Indra, 10.16c; 213.11a; 215.13d;
215.14d; 218.14c; 218.19c (B1
tāta); 294.14d; 294.16d; 294.17c;
294.34c.

śakrātmaja—Arjuna, 43.11a.

śatakrato—Indra, 213.36b.

śatrukarṣana—Arjuna, 296.20d (K1-3
B1.2.4 D1.5 °karṣaṇa).

—R̥tuparna, 70.11d (Ś1 K1.3 B1.2.4
D1-3 °karṣaṇa).

—Kumbhakarna, 270.25d (K1 °kar-
ṣaṇa; K2 B D1.2.5 °karṣaṇa).

—Duryodhana, 238.38d (Ś1 K1.2 B D2
°karṣaṇa).

śatrugna—Nala, 61.17a (Ś1 K1.4 D1-3
rājendra).

śatrutāpana—Bhīma, (802*.4).

śatruniṣūdana—Arjuna, 842* (B1.3 M2
°niṣūdana; B4 °nibarhaṇa).

śatrusūdana—Yudhiṣṭhira, 156.24d (K1.2
B1 D1.2.5 pāṇḍava; Ś1 bhārata).

śatruhan—Indra, 164.26b.

—Duryodhana, 240.37d.

—Bhīma, 158.48d [B D (except
D1-3.5) pāṇḍava (B4 bhārata)].

—Yudhiṣṭhira, 21.16d; 167.14b.

—Rāma, 147.37d.

śaraṇya—Parvata, 61.39c.

śastrabhṛtām vara—Indrajit, 272.4d.

śastrabhṛtām śreṣṭha—Yudhiṣṭhira,
156.31e [N (except K4) Śastra-
jitām; Ś1 K1-3 D1-3.5 pārtha; B
Dc Dn D4.6 tāta].

śāmyatām śreṣṭha—Yudhiṣṭhira, 87.11c
(K3 śrāmyatām; K4 D3 śri-
matām; D1.2 tapatām; T2 G3 M
śrāmyatām; G1 śrāvyatām).

śinipravīra—Sātyaki, 120.27c.

śucismite—Kuntī, 289.16b; 291.12b (D5
śucivrate).

—Damayanti, 224*.5; 61.122b.

—Draupadī, 13.119b; 32.31b.

—Sitā, 262.24d.

—Sukanyā, 123.9b.

śubhatāmṛakṣi—Draupadī, 70*.4 (D3
śucitāmṛakṣi).

śubhānane—Devasenā, 213.15d.

—Draupadī, 30.29d [S (except M2)
śucismite].

—Satyabhāmā, 222.52d (B1-3 Dn
D4.6 G3 varānane).

—Sāvitrī, 1324*.

- śubhe—Kuntī, 287.26d ; 289.13d ; 290.25f
[T1 G1 (inf. lin. aṣ in text)
anindite].
—Damayanti, 52.24c ; 61.87b ; 74.19d
(S śobhane).
—Draupadī, 30.2d ; 222.4f (S1 K1.2
śucismite).
—Sāvitṛī, 281.12d ; 281.36d (B4 bhā-
vini ; K4 D3 sute) ; 281.68d ;
281.92b ; 281.106c.
—Sukanyā, 123.18b.
—Surabhi, 10.8a.
śubheksaṇe—wife of Dala, 190.80a.
śūrāḥ—gods, 221.40b.
śūladhr̥k—Śaṅkara, 81.108d.
śaibya—Kotikāśya, 250.4c ; 250.5b ;
251.4d.
śaila—Mandara, 43.22c ; 43.23a ; 188*.7.
—Vindhya, 102.4c.
śailarāja—Mandara, 188*.5.
śailasute—Gaṅgā, 140.14d.
śailendra—Vindhya, 102.12c ; 173.19c.
śokavivardhana—Nala (Damayanti),
61.26d [S (G1 missing) °nibarha-
ṇa (T1 °vināśana)].
śokāpanuda—Aśoka, 280*.1.
śobhanāḥ—vāramukhyas, 110.31d.
śobhane—Damayanti, 52.27d.
—Draupadī, 102*.2 ; 30.32b [K2 B (B1
corrupt) Dn D4.6 suśobhane].
—brāhmaṇastṛī, 197.43b ; 197.43f (S1
K1.2 bhāmini).
—Lopāmudrā, 97.18b.
—Sāvitṛī, 278.23b.
—Sukanyā, 123.3d.
—Surabhi, 10.15b.
—Svāhā, 220.6d.
sakhi—Satyabhāmā, 223.1c.
—Sītā, 264.54b.
sattama—Kauśika, 200.22b ; 200.46b ;
206.26d (T1 dvijottama).
—Bhīma, 176.11d [B1 (m as in text)
kurusattama].
—Mārkaṇḍeya, 187.20d ; 187.26b (S1
D1.3 bhārgava ; K1.2 mune) ;
196.3b (K3 vipraśisattama ; D5
brahmaśisattama ; K4 devasatta-
ma) ; 196.4b.
—Yudhiṣṭhira, 195.35b (S1 K1.2 bhā-
rata) ; 206.32b ; 216.15b.
—Lomaśa, 195*.3.
—Vaiśampāyana, 157.2d ; 241.1d (B2
dvija) ; 287.2b ; 1336*.1.
—Vyādha, 200.29d.
—Skanda, 218.13d.
satputra—Indrajit, 272.3a.
satyaparākrama—Arjuna, 41.5b ; 187*.3.
—Yudhiṣṭhira, 78.15b ; 154.25b.
—Rāma, 275.47d.
satyaparākramau—Madhukaitābha,
194.22b.
satyapratijñā—Daśaratha, 261.21a.
satyabhṛtām vara—Karna, 284.10b [K
K3 missing] D3.5 dharma° ; T
G1.2.4 śastra°].
satyavikrama—Uśinara, 131.10d.
—Lomaśa, 129.19b (S1 K D3.5 satya-
saṅgara ; D1.2 tapodhana).
satyasamīdha—Nala, 61.53b (K3 T1
satyadharmā).
satye—Satyabhāmā, 222.9b ; 1094* ;
222.28c ; 1096* ; 222.56c ; 223.2a ;
223.7d.
sanātana—Arjuna, 42.32b.
sandhividām śreṣṭha—Duryodhana,
241.9c (T1 M samdhimatām).
sarpa—Ājagara, 177.4c ; 177.13a ; 177.21a ;
177.21c ; 177.23a (D5 saumya) ;
177.24c ; 178.3a ; 178.8a ; 178.16d.
sarparāja—Ājagara, 177.14c.
sarvajña—Vaiśampāyana, 39.4c.
sarvatamopaha—Sūrya, 291.17b (B Dc
Dn D4.6 T2 G3 °nuda).
sarvadharmabhṛtām vara—Yudhiṣṭhira,
187.49d.
sarvadharmabhṛtām śreṣṭha—Mārkaṇḍe-
ya, 206.33c [B D (except D1-3.5
G3 °vidām śreṣṭha)].
sarvabhūtanamaskṛta—Śaṅkara, 40.59b
(T1 °devanamaskṛta ; B2 G2
°lok°).
sarvabhūtamahesvara—Śaṅkara, 174*.9
[K1.3 Dc D1-3 sarvabhūtanamas-
kṛta (S1 °deva°) also °skṛtaḥ)].
sarvabhūteśa—Śaṅkara, 40.57a [K3 B
(except B2) Dn D4.6 sarva-
deveśa].
sarvavit—Yudhiṣṭhira, 885*.6.
sarvānavadyāṅga—Nala, 52.19a.
sarvānavadyāṅgi—Damayanti, 61.67c.
savyasācin—Arjuna, 42.32a.
sahasrākṣa—Indra, 286.14c.
sādhvācāraguṇānvita—Vyādha, 205.11d
(B Dn1.n2 D4.6 G3 dharmācāra°).
sādhō—Manu, 185.18c.
—Mātali, 43.18a.
—Mudgala, 246.26c ; 247.36c.
—Rāma, 275.29c.
sādhvi—Sāvitī, 282.9c ; 282.43d.
—wife of Dala, 966*.1.
sārathe—Sanjaya, 46.3d.

- Sūta, 19.20d.
 —Vārṣṇeya, 241* ; 57.16d.
 sirñhoraska—Nala, 61.12a (K2 Dn D5
 vyūḍhoraska; B2 sirñhasaṁdha).
 sukr̥tinām vara—Yudhiṣṭhira, 87.14d.
 sukeśi—Draupadi, 249.13c ; 254.3c.
 sukhārha—Yudhiṣṭhira, 181.41d.
 sugātri—Draupadi, 249.8d.
 sucaritavrata—Mudgala, 246.29d.
 sudurbuddhe—Nala (akṣāḥ), 58.15a.
 sudr̥ghavrata—Cyavana, 596* .1.
 subhage—Kunti, 290.13a.
 —Gaṅgā, 140.14c.
 —Damayanti, 61.20a.
 —Draupadi, 249.11d.
 —Lopāmudrā, 95.24a.
 —Satyabhāmā, 222.37a.
 —Satyavatī, 115.21c.
 —Sarasvatī, 184.3c (S1 vimale);
 184.16c ; 184.18d.
 —Suśobhanā, 190.12 (B1-3 Dn D4.6
 G3. bhadre).
 subhru—wife of Dala, 966* .3.
 sumadhyame—Damayanti, 50.27d ;
 58.28b.
 —Draupadi, 79.17b ; 1093* .
 —Lopāmudrā, 95.19d.
 —Sāvitri, 281.67b ; 281.70b.
 sumahābhāga—Yudhiṣṭhira, 993* .
 sumitrānandivardhana—Lakṣmaṇa,
 1263* .
 sulocana—Kṛṣṇa, 194.27b (S1 K1.2 su-
 rottama).
 suvira—Jayadratha, 252.3d.
 suvrata—Kumbhakarna, 1237* .
 —Kauśika, 202.6d (M1 dvijottama).
 —Nārada, 80.8d.
 —Pulastya, 80.19b.
 —Manu, 185.7d.
 —Mārkaṇḍeya, 196.13d (B2 supra-
 bha).
 —Yudhiṣṭhira, 21*2 ; 82.12b (B D4.6
 bhārata ; T G bharatarṣabha) ;
 83.90b.
 —Lomaśa, 114.15b (S1 K B Dc D5
 bhagavan).
 —Satyavat, 281.72b.
 suśile—Sāvitri, 282.43c.
 suśobhane—Draupadi, 30.2b (S śubhā-
 nane).
 —Sukanyā, 123.18f [Dc D1.2 S (T1 G1
 varā°) śubhānane].
 suśroṇi—Kuntī, 291.25a (K D5 bhāmi-
 ni).
 —Keśini, 72.4c.
 —Draupadi, 30.18a ; 32.4a ; 251.18a.
 —Sītā, 262.34c ; 265.16c.
 susmite—Kuntī, 290.15b (K D1 bhāvinī ;
 Dc D2.5 bhāmini).
 suragaṇārcita—Indra, 135.19b.
 suragaṇeśvara—Indra, 135.40b.
 surapurṇgava—Indra, 164.27d (S1 K
 B4 D1.2 surarṣabha).
 surarṣabha—Skanda, 219.17b.
 suravarottama—Kṛṣṇa, 194.26d (S sura-
 sattama).
 suraśreṣṭha—Sūrya, 286.9b.
 surasattama—Kṛṣṇa, 194.27d (G1 puru-
 ṣottama ; K4 surottama).
 —Skanda, 1069* .
 surasattamāḥ—Devas, 53.18d ; 136.6b.
 surāḥ—Devas, 98.6c ; 101.6a ; 506* .6.
 surātmaja—Skanda, 221.76f (B2.3 Dn
 D4.6 G3 mahābhujā ; D5 satta-
 ma).
 surādhipa—Indra, 10.11b.
 sureśa—Yama, 281.28d (T1 surottama).
 surottama—Kṛṣṇa, 194.20b.
 —Skanda, 218.7b (S1 K2 sureśvara) ;
 218.44b.
 sūta—Nala-bāhuka, 70.7c.
 —Mātali, 168.24d.
 —Samjaya, 46.3a ; 46.32a ; 46.34a ;
 199* .1 ; 48.41a.
 sūtaja—Karna, 241.19d (C1 suvrata) ;
 294.25d.
 —Sūta, 19.25d.
 sūtanandana—Samjaya, 48.7b.
 sūtaputra—Śala, 19.32a.
 somapīthināu—Aśvinas, 123.22b [S1
 K1.2.4 D3 somapā (S1 pī) yinau].
 saumya—Aśvapati, 277.17e.
 —Kotikāśya, 248.14a.
 —Nakula, 296.9c.
 —Yudhiṣṭhira, 1388* .
 saute—Sūta, 19.29a ; 19.31a.
 sauvira—Jayadratha, 251.6c.
 strikāmuka—Jayadratha, 256.21a.
 svarbhānusūdana—Sūrya, 284.38b.
 svāmin—Nala (Damayanti), 60.3b.
 hayakovida—Nala-bāhuka, 70.17b (T1
 jaya° ; G1 naya° ; M1 aśva°).
 harilocana—Hanumat, 275.44d.
 hare—Rāma, 1303* .2.
 hiranyavarṇa—Skanda, 218.6a [K4 B1-3
 D (except D1-3.5) G3 °garbha ;
 T1 G1 °rūpa].
 hutāśana—Agni, 1059* ; 214.3b ; 214.6d.
 hr̥ccchayavardhana—Nala, 52.19b.
 hr̥ṣīkeśa—Kṛṣṇa, 47* .1.
 haiḍimbeya—Ghaṭotkaca, 145.4a.

AN INVESTIGATION INTO THE NATURE OF VENĀ, THE DEITY OF THE RĠVEDA-HYMN X. 123*

By

V. M. APTE.

§ 1. In the view of the poet of *RV.* X. 64. 2, the noun *Venā* is evidently to be connected etymologically with the root *ven* (*venanti venāh*). The writer prefers this derivation to that of the *Uṇādi sūtras* (III. 6), which derive it from the root *aj*, to go [= *vī*, *ajervibhāvaḥ*] with the suffix *na*. The general sense of the noun *Venā* (whether used as substantive or adjective) therefore depends on that of the root *ven*. In a paper entitled 'The root *ven* and its verb-forms in the *Rḡveda*' contributed to the '*Dr. A. B. Dhruva Memorial*' Volume, the writer has advanced the proposition that all the available *Rḡvedic* evidence shows that the root *ven* [compare *vaēnaiti* (= he sees), the Avestan equivalent of the *Rḡvedic venati*] means (1) primarily 'to see, behold, view, observe, watch, attend or to be conscious of' in a *physical sense*; and (2) secondarily 'to see, attend or perceive' *with the mind's eye*, i.e. 'to ponder over, meditate or consider' and that it is not *at all necessary*, (though not impossible), to attach to it the meanings 'to long for, love' and the opposite one of 'to be jealous of, turn against some one' etc. (as is done, for example, in GRASS-MAN'S *Wörterbuch*).

§ 2. It is the aim of this paper to show that the noun *Venā*, derived (as it most probably is) from the root *ven*, the meaning of which has been thus determined, should therefore mean, 'One who sees, observes or perceives with one's physical or mental eye.' As an adjective the word is consequently almost synonymous with *vicakṣaṇā* and like it is used as an epithet of *Sūrya*, *Indra*, *Brhaspati* and other deities in the *RV.* If we now critically examine all the uses of the noun *Venā* in the *RV.*—namely those in the very obscure hymn X. 123, dedicated according to the *Anukramanī* to the praise of the deity *Venā* and in eighteen (18) passages outside this hymn—, we find conclusive evidence to establish :

(1) firstly, that the general sense of the noun *Venā* is the one described above and

(2) Secondly, that the nature of the deity—*Venā*—

approximates more closely to that of *the celestial form of Agni (or the Sun conceived as a form of Agni)* than to that of any other deity. There is a remarkable divergence of views on this second point but the more important of them may be stated here as follows :—

- (1) *Sāyana*—The god of the middle region (*madyasthāno devaḥ*).
- (2) *Mahidhara*¹—The Moon (*Candra*).
- (3) *WILSON*—The thunder-cloud.

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¹ "*anayōdhidaivamadhiyajñam cāvasthitah somaḥ stūyate | adhidaivam condṛātmand stūyate |*"

Bhāṣya on the *Vājasaneyya saṁhitā* VII. 16 = *RV.* X. 123. 1.

- (4) ROTH, E. H. MYER² and OLDENBERG³—The rain-bow.
 (5) GRIFFITH—The Sun as he rises in the mist and dew of the morning.
 (6) BERGAIGNE⁴—Soma.
 (7) LÜDWIG⁵ and
 (8) HILLEBRANDT³ } —Soma (= The Moon).

§ 3. An analysis of the *Venā* passages outside the so-called *Venā* hymn (X. 123) gives us the following groups or categories :—

- (i) Two passages in which the term *Venā* is used as an abstract noun (masculine).
- (ii) Six passages in which it is employed in the singular (masculine) as an epithet of one or the other of the deities, Bṛhaspati, Indra and Sūrya.
- (iii) Two, in which it occurs as a Feminine noun used in the singular for *Sūryā* and in the plural for the Dawns.
- (iv) Six verses, in which it is found in the plural (masculine), to designate (in all probability) the Maruts.
- (v) Two passages, in which the term stands for an independent deity of the rank of Indra and Sūrya. What this last category stands for, should be clear from the determination of the nature of *Venā*, the traditional deity of X. 123, which is the principal object of investigation in this paper. Quite irrelevant for our purpose are the four passages in which *Venā* or *Venyā* or *Vainyā* occur as the names of *martyā* patrons or kings. For example, *Venā* is the name of a generous patron in X. 93. 14; *Venyā* in X. 148. 5 is a praiser of Indra and in X. 173 is one whom Indra saves (or defeats?) in the interests of *Āstrabudhnā*; and finally *Vainyā* (descendant of *Venā*) is the patronymic of the mythic *Prthī* in VIII. 9. 10. They throw no light either on the character of the deity *Venā* or on the general sense of the noun *Venā*.

§ 4. Let us examine the first group of passages :—X. 64. 2⁷ reads : “ (Our) mental powers exert themselves (or ‘our intentions intend’) in (our) hearts [Compare V. 85. 2 and IV. 41. 1 for the connection of *krātu* with *hṛd*], so also our thoughts (or prayers) ; (our) powers of perception (*venāḥ*) perceive (*venanti*) (or ‘our observations observe’) and fly (*patayanti*) to the quarters (*ā diśaḥ*). No other gracious one is found other than these ; my longings (*kāmāḥ*) become fixed upon the gods.” This passage helps to strengthen my view that *venāḥ* and *venanti* need not be taken (nay, *here cannot be taken*) to mean ‘longings’ and ‘long for’ (respectively), because there is a separate word *kāmāḥ* in the verse denoting ‘longings’. Nor is this position affected, if we accept the very brilliant and plausible suggestion of OLDENBERG to take

² *Gandharven* 155 ; see also his *Indogermanische Mythen*, I. 99.

³ *Noten*. Wherever in this paper, OLDENBERG'S view is mentioned, the reference is understood to be to his *Noten*.

⁴ *La Religion Védique d'après les hymnes du Rgveda*, II, 39 ; III, 66.

⁵ *Der Rigveda* IV, 158 see also his *Über die neuesten Arbeiten u. s. w.* 109 f.

⁶ *Vedische Mythologie* (Zweite veränderte Auflage 1. Band, 1927) pp. 376-7.

⁷ *kratūyānti krátavo hṛtsú dhītāyo vénanti venḥ patáyanty ā diśaḥ | ná marḡitā vidyate anyā ebhyo devéṣu me ādhi kāmā ayamsata ||* X. 64. 2

ā *diśaḥ* against the *padapāṭha* as one word meaning 'designs.' *Venā* means here an 'instrument of perception' working on the physical or mental plane. The second passage IX. 21.5^a reads: "On this (patron) confer the tawny (*piśāngam*) *Venā* (visible or distinguishing mark), so that (it) may incite (*ādiśe*) (him), who is negligently to us." Light on the meaning of *Venā* here is thrown by the very next verse, IX. 21. 6^{ab}: "Place on (or with) us the mark (*kētam*) to incite *ādiśe* i.e. to excite the curiosity and envy of) others, as a wright should (place) the new (wrought) wheel (on to the car)." So *venā* in our verse (5) is the same thing as the *kēta* in verse 6. As to what this *piśānga* (tawny) mark (*venā* or *kēta*) may be, is easily gathered from II. 41. 9^b where the gift of wealth (*rayīm*) which has the appearance of a tawny or motley (herd of cows) [*piśāngasandṛśam*] is sought from the Aśvins; from V. 31. 2^b where Indra is called *piśānga-rāti*, giver of the tawny (herd); from VIII. 33. 3^{c1}, where the *piśāngarūpa vāja* (wealth having a tawny form or colour) sought from Indra is actually specified as *gómantam* (consisting of cows) and from IX. 72 8^a and 107. 21^c where Soma Pavamāna is played to, for *rayīm*, *piśāngam* 'wealth that is tawny'. So here the primary derivative in *Venā* gives us that modified sense expressing an agent who becomes the recipient of the action (of perception) like the sense of the passive participle.¹⁰ So the first category gives us the two meanings of *Venā* as:—

- (1) The power that perceives mentally or physically and
- (2) that which is perceived (mentally or physically). Both these meanings are in perfect harmony with the primary and secondary senses of the root *ven* described in section § 1.

§ 5. We now take up those passages in which *Venā* is used as an epithet of various deities:

In I. 139. 10^{abc11} it is used of Bṛhaspati who in II. 23. 10¹² is called *Venya* (which may either be taken as synonymous with *Venā* or as meaning 'worth-seeing'). Now there are several passages in which Bṛhaspati is identified with Agni (Compare as an instance I. 38. 13 where Agni is identified with Brahmanaspati which is only the name: Bṛhaspati in another form. Similarly in II. 1. 3 ff. Agni though identified with many gods is most intimately connected with Brahmanaspati, as only these two names are in the vocative. Bṛhaspati is an epithet of Agni in III. 26. 2. In V. 43. 12 such epithets are used of Bṛhaspati as clearly point to Agni. In I. 18. 19 and X. 182. 2 Bṛhaspati is apparently *narāśansa*—a form of Agni. Like Agni, Bṛhaspati is a priest, is designated as *sahasasputra*, 'son of strength' (I. 40. 2) and as Aṅgiras (II. 23. 18). He has three abodes like Agni (IV. 50. 1). This does not mean that he is *not* distinguished from Agni, with whom he is invoked or enumerated

asmin piśāngam indavo dādhatā venām ādiśe |

yó asmābhyam āravā || IX. 21. 5.

ṛbhūr ná ráthyam návam dādhatā kētam ādiśe |

śukrāḥ pavadhvam ānasā || IX. 21. 6.

MACDONELL, *Vedic Grammar*, 108.

Hótā yakṣad vanīno vanta vāryam bṛhaspátir yajati venā ukṣābhiḥ puruvārebhir
ukṣābhiḥ | = I. 139. 10.^{abc}

vibhū prabhū prathamām mehanāvato bṛhaspáteḥ suvidātrāni rādhyā |

imā sātāni venyāsya vājīno yēna jānā ubháye bhūñjāté víśaḥ || II. 24. 10.

separately. The writer endorses the view of Macdonell¹³ that 'Brhaspati was originally an aspect of Agni as a divine priest presiding over devotion, an aspect which (unlike other epithets of Agni formed with *pāti*, such as *viśām pāti*, *grhapāti*, *sadas-pāti*) had attained an independent character by the beginning of the Rgvedic period, though the connection with Agni was not entirely severed.' Langlois, H. H. WILSON, MAX MÜLLER agree in regarding Brhaspati as a variety of Agni. *Venā* then as an epithet of Brhaspati is connected indirectly with Agni.

§ 6. In I. 61. 41^{c 14} and VIII. 63. 1^{b 15}, Indra receives the epithet *Venā* and in VI. 44. 8^{d 16}, the epithet *Venyā*. It would be enough for our purpose to state that any god could be described as *Venā*, the 'Seer' or *Venyā* 'the seer' or 'one worthy of being seen', but I may draw attention to the growing weight of evidence favouring the view so admirably summed up by ZIMMERMANN,¹⁷ 'Thus the meteorological conditions both of the Indo-Iranian and the Vedic home, the Rk. text itself, Indo-European parallels, as well as the partly contemporary, partly subsequent ritual favour the view that Vṛtra is originally a frost-and winter-demon and Indra consequently a god of light' (italics mine). If this view is accepted the epithet *Venā* may well be taken as emphasizing the solar aspect of the nature of Agni. If *Venyā* in VI. 44. 8^d is taken to mean 'worth-seeing' as mentioned in the preceding section, the last *pāda* 'The *Venyā* uncovered his body (for all) to see' would be an extremely appropriate description of a Solar deity.

§ 7. In I. 83.5¹⁸ *Venā* is an epithet of Sūrya. This passage brings out very clearly the connotation of *Venā*. The first three *pādas* tell us that "Atharvan—an ancient priest extended the paths by sacrifices and then Sūrya, the *Venā*, the guardian of the *vratās* was produced; (the ancient Seer) *Kānya Uśanā* (then) drove hither the cows (the ruddy rays of morning light or the beams of Dawn)." Thus the Sūrya (= *Venā*) of this verse is conceived as a *form* (the celestial form) of Agni (which in our view, is the nature of *Venā*, the deity of X. 123).

§ 8. This solar bias of the epithet is further confirmed by I. 34. 2^{ab 19} where the term *Venā* (fem. of *Venā*) is used of Sūryā and by VIII. 41 3^{cd 20} where *Vēnīh* (fem. pl. of *Venā*) is an epithet of the Dawns (these being verses belonging to the third category described in § 3).

§ 9. We now turn to passages forming the fourth category in which the term is used in the plural (masc.) in the form *Vendh*. I. 56. 2²¹ is construed variously :

(1) GELDNER²² : "To him shall the words of praise bring full refreshments

¹³ *Vedic Mythology*, 103-4.

¹⁴ *ūpo venāsyā joguvāna onīm sadyo vīryāya nodhāh* || I. 61. 14^{cd}

¹⁵ *sā pūrvyō mahānām venāh krātubhir ānaje* | VIII. 63. 1.^{ab}

¹⁶ *vāpur dīśāye venyō vyāvah* || VI. 44. 8^d

¹⁷ *Hymns from the Rgveda*, BSS. No. LVIII, 2nd edition (1922) cxi.

¹⁸ *yajñān ātharvā prathamāh pathās tate tātaḥ sūryo vratapā venā djani* |

d gā ājad uśanā kāryāh saccā yamāsyā jātām amṛtaṁ yajāmahe || I. 83. 5.

¹⁹ *trāyāh parāyo madhuvāhane rāthe sōmasya vendm ānu viśva id viduḥ* | L. 34. 2.^{ab}

²⁰ *tāsyā vēnir ānu vratām uśās tistrō avaradhayan nābhantām anyakē same* ||

VIII. 41. 3.^{cd}

²¹ *tām gūrtāyo nemmannīṣaḥ pārīṇasaḥ samudrām nā samcārāṇe saniṣyāvah* |

pātīm dākṣasya vidāthasya nā sāho girīm nā vend ādhi roha tējasā || I. 56. 2.

²² *Der Rgveda* : übersetzt und erläutert.

[*neman* being separated from *īśaḥ* against the Padapāṭha] as the gain-seekers to the ocean on their voyage. Ascend the lord of craft, with the strength of wisdom, (and) with energy, as watchmen (ascend) a mountain (*giriṁ nā vendh*)."

- (2) OLDENBERG : "The praises striving after guidance, in their fulness, mount (*ādhi + roha = ādhi rohanti*) him (Indra) as the *Venás*, a mountain" which gives us one sentence ; or "the praises (go after, or mount up to) him ; mount up (*ādhi roha*) to *dákṣasya pátim*, as the *Venás*, a mountain."

Whatever construction we adopt, *Vendh* might either be the 'watchmen' or 'spies (*spásah*)' as in VIII. 47. 11 (in which case, our view of the meaning of the root *ven* is further confirmed) or they might be the *Venás* of VIII. 100. 5²³, which we take up now for discussion as the second (i.e. the next) verse of this group. In the case of this latter verse, as in many others, the ignoring of the physical sense of *ṛtá* has led to a wrong construction, whereby the two words *ṛtásya vendh* are taken together, the rendering being, "the law's lovers"! My construction of *ab* is "When the *Venás* mounted up to me, (*mā áruhan*), seated alone (as I was) [*ékam āśīnam*], on the ridge (*pr̥sthá*) of the beautiful *ṛtá* (*haryatásya ṛtásya*) etc.' There is no objection to taking (with HILLEBRANDT) the *Venás* as being the Maruts here or in IX. 64. 21²⁴ ; 73. 2²⁵ ; 85. 10²⁶-11²⁷—the remaining four verses of this (fourth) group—though I think the general sense of 'seers' 'poets' (*viprāḥ*) will do quite as well. The expressions *ácikradan* in VIII. 100. 5^a, *abhí. . . anūṣatva* in IX. 64. 21^a ; *avivīpan* in IX. 73. 2^b, *mādhujihvāḥ* (*vendh*) in IX. 85. 10 and *giro vendānam akṛpanta* in IX. 85. 11, go exceedingly well either with the poet-priests who praise Indra or Soma, or with the Maruts. The Maruts are several times called singers (V. 52. 1 ; 57. 5 ; 60. 8 ; VII. 35. 9 ; I. 19. 4 ; 166. 7 etc.). The sound of the winds (IV. 22. 4) which primarily represented their song could easily lend itself to the conception of a hymn (III. 14. 4). They are compared with (X. 78. 1) and addressed (V. 29. 3) as priests. The *Venás* are not merely spirits or demons that move to and fro in the sky-region as OLDENBERG²⁸ would believe but are the Maruts. Though thus the identification of the *Venás* with the Maruts is easily acceptable, I do not agree with HILLEBRANDT when on the strength of this identification, he looks upon the *Vená*-hymn as a hymn to Soma : He has overlooked the very intimate connection of Agni with the Maruts, which among other things establishes Agni as the *Vená*, par excellence among the *Venás*, as I propose to show now.

23 *ā yān mā venā áruhan ṛtásyaṁ ékam āśīnam haryatásya pr̥sthē |*

24 *abhí venā anūṣatēyakṣanti pr̥cetasah |*
mājjantyávicetasah || IX. 64. 21.

25 *samyāḥ samyāñco mahīṣā aheṣata sindhor ūrmāv ādhi venā vivīpan |*
mādhor dhārābhīr janáyanto arkām ít priyā indrasya tanvām avivīdhan ||
IX. 73. 2.

26 *divo náke mādhujihvā asaścato venā duhanty ukṣānam giriṣthā |*
apsú drapsām vāvṛdhānām samudrá ā sindhor ūrmā mādhumantam pavitra ā
IX. 85. 10.

27 *nāke suparṇām upapaptivāmsam giro vendānam akṛpanta pūrviḥ |*
śísum rihanti matáyah pānipnataṁ hiraṇyáyaṁ śakuāṁ kṣdmani śihām || IX. 85. 11.

28 *Die Religion des Veda.*

§ 10. Before we pass on to the hymn X. 123 where the term *Vená* instead of being an epithet of other deities (as shown so far) figures as the designation of an independent deity (an exactly parallel case being that of the word *ṛbhu*), we must refer to two passages outside the *Vená*-hymn where *Vená* has already attained the status of an independent deity. In VIII. 3. 18^{d20}, Indra is asked to *respond to the invocation like Vená*. If any god in the R̥gvedic pantheon deserves this tribute and can become the standard of comparison (*upamāna*) in this respect, it is surely Agni who is more closely connected with human life than any other god. He is the *gṛhapati*, the *viśpati*, the *alithi* in human abodes. He is the nearest kinsman of man (VII. 15. 1 etc.) and a friend (I. 75. 4 etc.). Agni as the intermediary between heaven and earth, as the messenger between the two races of gods and men (IV. 2. 2 and 3) must be the first to listen to the call of the human worshipper and *as such, a shining example to be emulated by other gods*. In IV. 58. 4³⁰ the second passage of the fifth category described in section § 3, we are told that, of the three forms of *ghṛtá* which was concealed by the *Paṇis* and which the gods traced in the Cow, Indra produced one, Sūrya another and the third was fashioned by the gods from *Vená* in their own power. Since it is well-known that the treasure of heavenly light was concealed by the *Paṇis*, it is evident that a Solar divinity is referred to in *Venát*. If we now remember the very close connection of *ghṛtá* with Agni who is called *ghṛtákeśa*, *ghṛtá-nirmij*, *ghṛtáprīṣha*, *ghṛtápratīka*, *ghṛtá-prasalla* (there are many such *ghṛtá*-compounds referring to Agni) and finally *ghṛtáyoni* (362.6), there should be no doubt, that the *Solar aspect of Agni is represented here by the term Vená*.

§ 11. This survey has almost prepared us to recognize in the *Vená* of the hymn X. 123 the celestial form of Agni or the sun conceived as a form of Agni. Among the divergent views enumerated in the beginning, the most important is the last one which identifies *Vená* in X. 123 with Soma. Hillebrandt's main argument seems to be that since the *Vendh* are the Maruts, and since Soma is called *marútvaṇ vṛṣabháh*, in VI. 47. 5 and *máruḍgaṇaḥ* (a *bahuvrīhi* compound) in IX. 66. 26, the *Vená par excellence*, (the chief of the *Venás* or Maruts, as Āditya Varuṇa is the chief of the Ādityas) must be Soma. He has however overlooked the still closer connection of the Maruts with Agni, which I propose to draw attention to, now.

§ 12. I. 19 is a hymn to *Agni and the Maruts*, the refrain of which is : *marúdbhiragna ā gahi*, 'with the Maruts, O Agni, come hither.' Verse 4 of this hymn speaks of them as those *who sing (their) song*'. In V. 56 (*a hymn to the Maruts*) Agni is invoked in the first verse, possibly in the second also. For hymn V. 60, the *Anukramaṇi* gives the '*Maruts or 'Maruts and Agni*' as the deity ! As a matter of fact, this description might well apply to hymn V. 56 and others, used for the *Āgni-māruta śāstra* which is a reminiscence in the later ritual of the original close relation of Agni and the Maruts. In I. 170. 4, the Maruts are described as lighting the fire ; II. 34. 1 speaks of them as shining like Agni ; In V. 58. 3, the Maruts are asked to accept the *fire* which has been lighted for them and in V. 61. 4 as warming themselves at the *fire*. In VI. 66 (*a hymn to the Maruts*), in v. 9^a, in the midst of a

²⁰ *imé hi te kārāvo vāvaśūr dhiyā viprāso medhāsātaye |
sā tvām no maghavann indra girvaṇo venó nā śṛnudhī hávam || VIII. 3. 18.*

³⁰ *tridhā hitām paṇibhir guhyāmānaṁ gāvī devāso ghṛtām ānv avindan |
indra éhaṁ sūrya ékaṁ jajāma venād ékaṁ svadhāyā niṣ tataḥsuḥ || IV. 58. 4.*

description of the Maruts, Agni is addressed *which would be surprising if a close relation between the two were not taken for granted*. In VIII. 7. 32, the poet tells the Kanvas that he has praised Agni with the Maruts and v. 36 of the same hymn says that when the old fire has been kindled, the Maruts simultaneously have extended themselves *with their lights*. This is an important passage as showing the connection of the Maruts with light which provides a link with Agni. Agni is called *marúdvīdhaḥ* (III. 13. 6) and *marútsakhā* (VIII. 103. 14). 'The *vṛjāna* (sacrificial place or community) of which Agni is the centre is described as *marút-stotra* (I. 101. 11*) and as *marúdgāṇa* (X. 66. 2^c). The Maruts were the first to perform the sacrifice as *daśagvas* (II. 36. 2) and they purified Agni in the house of the worshipper when the Bhṛguś kindled him (X. 122. 5). Agni is said to have fashioned (VI. 3. 8) or begotten (I. 71. 8) the Marut-host. So then, if, *venāḥ* are the Maruts, (their leader) the *Venā* par excellence is Agni in his celestial form.

§ 13. Let us now examine the hymn X. 123, verse by verse :

V. 1.³¹ '*Venā* urges forth or stirs into activity the calves or the daughters of *pr̥śni* (*pr̥śnigarbhāḥ*).'*Venā* may well be here, the celestial form of Agni, whether we interpret this expression *pr̥śnigarbhāḥ* as referring to the 'waters' or 'rays' or to the 'Maruts' (in which case, the feminine would be rather usual, the common epithet of the Maruts being *pr̥śnimātaraḥ*). 'He (i.e. *Venā*) is sheathed or born in light (*jyōtirjanāyūḥ*).'*Agni* is called *jyōtiratha* in I. 140. 1^d. In any case, the epithet is easily understandable of Agni. As regards the second hemistich, I advance the suggestion that *apām saṁgamé* (the equivalent of *saṁgathé nadīnām* in VIII. 6. 28 = 'in the meeting-place of the waters') be separated from *sūryasya* and '*sūryasya*' be construed with *śīsum*. This will obviate the awkward statement 'when the Sun and the Waters meet' resulting from the no less awkward construction : *apām saṁgamé sūryasya*. To my mind, the relation between *Sūrya* and Agni is sufficiently close to warrant the description of Agni, as the child (*śīsu*) of the Sun. In V. 47. 3 we are told that Agni, the bull, the red *suparnā* enters into the womb of his father the Sun. But *as it is not a familiar conception*, I do not press the suggestion. *Sūryasya*, may well be joined to *apām saṁgamé* and *śīsu* taken by itself as in IX. 85. 10-11 where it refers to Soma Pavamāna. My proposition is however not affected as *Agni is often called śīsu*. As regards the last *pāda*, I must say that the description 'The poet-priests (*vīprāḥ*) [*who may well be the Maruts*] lick this (*Venā*) with their prayers, like (a cow) her calf' suits Agni as *Venā* very well.

V. 2.³² (a) & (b) : *nabhojāḥ*, 'born in mist or moisture' is Agni who is also called *nabhovīd* in X. 46. 1. *Nabhojām tritāntum* in X. 30. 9 undoubtedly refers to Agni because *tritāntu* is a sure indication of Agni whose triple character is so pronounced. The construction in the verse X. 30. 9 is

³¹ *ayām venās codayat pr̥śnigarbhā jyōtirjanāyū rājaso vimāne |
imām apām saṁgamé sūryasya śīsum nā vīprā matibhi rihanti || X. 123. 1.*

³² *samudrād ūrmim úd iyarti venō nabhojāḥ pr̥ṣṭhām haryatāsyu darśi |
ṛtāsyā sāvān ādhi viṣṭāpi bhrāt samānān yōnim abhy ānūṣata vrdh || X. 123. 2,*

tritāntum nabhojām (i.e. *agnim*) *pāri vicārantam ūtsam auśānām ... ūrmim prā heta* (= stir forth the wave of Soma that moves round Agni). This relation between the wave of Soma (celestial) and Agni (celestial) is reflected in our V. 2 which says 'that *Venā* raised the wave of Soma from the *samudra*. *Prīṣṭām haryatāsya darśi*. 'The ridge of the beautiful (*ṛtā*) became visible.' That *ṛtā* (the belt of the Zodiac) is to be supplied here is not only clear from *pāda* c but also from VIII. 100. 5^{ab} where the *Venās* mount up to Indra who is seated on the ridge of (*kharyatāsya ṛtāsya*) the beautiful *ṛtā*.

c & d : A splendour (*bhrāt*) appeared on the top of *ṛtā* and the *host* (*vrāḥ*) sang to (the glory of) the self-same birth-place (of the celestial Agni or *Venā*). The host evidently is the host of the *Vīpras* or priests or Maruts in v. 1. The word *samānām* (the daily-repeated or self-same) goes against the 'rain-bow' theory regarding *Venā* as it is not a regularly recurring phenomenon. Finally may be compared III. 14. 4 where (Varuṇa, Mitra and) the Maruts sing to the glory of Agni.

V. 3.³³ "The many mothers singing to the common [birth-place, cf. v. 2^d] stood, sharing a common residence; (c) stepping up to the peak of *ṛtā*, the songs (personified) lick the sweetness of *amṛta*." The construction is not clear. The *mātārah* may be the Dawns, or the Waters or even the personified Songs (*vānīh*) of the last *pāda*. These songs are the *matāyaḥ* of the *vīpras* in V. 1 and of the *vrāḥ* (the priests or the Maruts) in v. 2. The *valsā* is the *śīśu* of v. 1.

v. 4.³⁴ (a), (b) & (c) : The *vīpras* (priests or the Maruts) knowing his beautiful form longed (to meet him), followed the roar of the wild bull (Agni) and reached the *sindhu* by going along the *ṛtā*."

(d) "The Gandharva found verily the immortal ones." The expression *apām gandharvām* in IX. 86. 36 and *gandharvó apsú* X. 10. 4^c show that the immortal ones are the Waters. I agree with Oldenberg that Gandharvá here is *Venā*. Now this *Gandharvá* is the celestial form of Agni for the following reasons :—

- (1) X. 10. 4 speaks of Gandharvá (in the Waters) and *ápyā yóṣā* (evidently the *apsarás* of v. 5) as the highest kin of the primeval twins : Yama and Yamī and I. 96. 2 and 4 speak of Agni as having created human progeny (*mānūnām prajāḥ*).
- (2) I. 163. 2 where Gandharvá holds the reins of the Sun-steed brings out the Solar character of Gandharvá.
- (3) Gandharvá is localized in the high region of the air or sky. He is a measurer of space (X. 139. 5) with which may be compared the *rājaso vimāne* of our v. 1 (which I should render "for the measuring of space.")

³³ *samānā pūrvī abhi vāvaśānds tiṣṭhan valsāsya mātārah sānīlāḥ | ṛtāsya sāmāv ādhi cakramāṇā rihānti mādhuvo amṛtasya vānīh ||* X. 123. 3.

³⁴ *jānānto rūpām akṛpanta vīprā mṛgāsya ghōṣam mahiśāsya hī gmnā | ṛtēna yānto ādhi sindhum asthur vidād gandharvó amṛtāni nāma ||* X. 123. 4

- (4) In several passages he is closely connected with some form of celestial light and brought into relation with the Sun or Sun-bird (X. 177. 2).
- (5) *Viśvāvasu* Gandharva is definitely the Sun-God in X. 139, where "the Waters seeing him went along the *ṛtā* and Indra seeing that, inspected the ends of the Sun," which is *but another version of the simultaneous release of the Waters beginning to flow along ṛtā and sunrise resulting from Indra's victory over Vṛtra.*'

vv. 5-7^{ss} The *Apsarās* whose lover is the Gandharvā (or the Sun as a form of Agni) of the preceding verse is naturally therefore the Dawn whose *jārā* is Agni who alone is called *uṣarbhūdh*. The best explanation of the description of *Venā* as the bird [*suparnām*, *śakunām*] with golden wings [*hiranyapakṣam*] (v. 6); *hiranyāye pakṣe* (v. 5) is provided by VII. 15. 4^{ab} : *divāḥ śyenāya agnāye* and the epithet *hiranyarupam* of Agni in IV. 3. 1¹ and X. 20. 9.

v. 8.^{3a} As regards v. 8, an almost complete explanation of it is furnished by X. 11. 4 which says that when the tribes chose Agni as the Hotṛ, *Śyena*, the bird i.e. Agni himself bore the *drapsā* (the Soma-drop) to the sacrifice. Now X. 11 (b) is a hymn to Agni! That the *bhānūh* of our pāda (c) is Agni or the splendour of Agni who shines with a bright (*śukrēṇa*) flame when the *drapsā* (Soma-drop) goes into the *samudrā* is clear from V. 16. 1^{ab}, where *bhānū* is an epithet of Agni and from VII. 4. 1 where *śukrīdya bhānāve* refers to Agni. Compare also II. 10. 2^a where Agni is called *citrābhānūh*.

§ 14. To sum up then, the nature of the deity *Venā* is identical with that of the Sun as a form of Agni or in other words, with that of the celestial form of Agni. The ambiguity and obscurity of passage where descriptions and epithets equally applicable to Agni and Soma are found, arise from the following circumstances :—

- (1) The ṚV poets switch on from an account of the earthly Agni to that of the celestial Agni (or the Sun as a form of Agni) without the slightest warning.
- (2) Agni and Soma are themselves very closely related. I. 93 is a hymn to *Āgnīśomau*—a dual divinity showing this intimate relation.

Besides in the ritual, Agni is the centre of the preparation of the Soma juice. The *drapsā* or *ūrmī* of this Soma when mixed with the Waters (i.e. the earthly counterpart of the heavenly Soma) is in the close vicinity of, nay, always round about the sacri-

³⁵ *apsarā jārām upasiṣṃyāṇā yōṣā bibharti paramē vyōman |*
cārat priyāsya yōniṣu priyāḥ sām śīdat pakṣe hiranyāye sāv enāḥ || X. 123. 5.
nāke suparnām ūpā yāt pātantaṁ hṛdā vēnanto abhyācakṣata tvā |
hiranyapakṣam vāruṇasya dūtām yamāsya yōnau śakunām bhuranyūm ||
 X. 123. 6.

ūrdhvō gandharvō ādhi nāke asthāt pratyān citrā bibhṛat asyadyudhāni |
vāsāno ātkam surabhīm dṛśe kām svār nā nāma janata priyāni || X. 123. 7.

• *drapsāḥ samudrām abhi yāj jīgāti pāsyan gṛdhrasya cālśasā vidharman ||*
bhānūh śukrēṇa śociṣā cakānās tṛtīye cakre rājasi priyāni. || X. 123. 8

fictal fire ! This has an exact *heavenly parallel* in the close relation of the celestial forms of both Soma and Agni and *quick-change artists that the RV poets are* they ring changes on the two aspects of both, not only in one and the same *sūkta* but even in the same verse, i.e. in almost in the same breath ! Finally, the very close relation between Agni and *samudrá*, is clearly stated in I. 95. 3 according to which the latter is one of the three birth-places of the former and in VIII. 102 the *trca* vv. 4-6 have the identical refrain *agnīm samudrá-vāsasam* !

This relation seems to have been overlooked by HILLEBRANDT³⁷ who thought that all the references to *samudrá* in this hymn were so many pointers to the deity Soma, which is also intimately (but not exclusively) connected with *samudrá* !

ŚRĪ VALLABHAGANĪ'S COMMENTARY ON THE ŚĪLOṆCHANĀMAMĀLĀ OF JINADEVAŚŪRI (A.D. 1598)

By

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The Government Manuscripts Library at the Bhandarkar Oriental Research Institute, Poona, possesses a copy¹ of Vallabhagaṇi's commentary on the *Śiloṇchanāmāmālā* which is a supplement to Hemacandra's *Abhidhānacintāmaṇi-nāmāmālā*. The *Śiloṇchanāmāmālā* is a lexicographical work and was composed by Jinadevasūri in Śaṁvāt 1433. Manuscripts of Vallabhagaṇi's commentary on this work are very rare. Out of the six manuscripts recorded by Prof. H. D. VELANKAR in his *Jinaratnakośa*,² five manuscripts exist in the private Jain Bhandars access to which is almost impossible. The only manuscript of this commentary existing in the manuscripts collection at the Bhandarkar Research Institute, is, therefore, important and I propose to give in this paper an analysis of this commentary with the help of the only manuscript available to me.

The commentator, while explaining the verses in the text, tries to give not only the meaning of the words occurring therein but their derivation also wherever possible. Before writing the commentary the author had consulted several works—especially grammatical and lexical³ as is evident from the authorities quoted by him. He quotes

³⁷ In his *Vedische Mythologie* (Zweite Auflage, 2 Band, 1929) p. 43, this scholar cites X. 123. 2 as evidence of the very close connection between the Moon and the Ocean, the equations Venā = Soma, and Soma = Moon being integral parts of his Soma-hypothesis.

¹ Ms. No. 285 of 1873-74.

² This work has been published under the auspices of the Bhandarkar Oriental Research Institute, Poona, 1944. Vol. I. 383b.

³ हेमचन्द्रादिहैमेणादिप्रयादिनामकोशाश्च ।

एवमिदं विमृश्य बार्ह प्रसादमासाद्य पूज्यानाम् ॥

about twenty-nine authorities in his small commentary, a list⁴ of which is given below :—

Amara, 4a, 6a, 7b, 8a, 8b, 9a, 11b, 12b, 13a.	Bhāguri, 3a, 4a, 5a, 6a. Manu, 3b, 10b.
Amaraṭikā, 8b.	Māla, 6a, 7a, 11a.
Arūṇa, 11a.	Mālākāra, 12a, 13a.
Indra Vyākaraṇa, 9b.	Muni, 2a.
Ugra, 8b.	Vācaspati, 8b, 12b.
Utpala, 12a.	Vāmana, 12b.
Kātya, 3a, 4b, 12b.	Vikramādityakośa, 2a.
Kṣīraswāmī, 7a.	Viśva, 6a.
Gauḍa, 4b, 7a.	Vaijayantī, 5a, 8a.
Durga, 6a, 8a, 10a.	Vaijayantīkāra, 8b, 9a, 13a.
Dhanavantarī, 13b.	Vyāḍi, 7a, 7b, 8a, 10b, 12a.
Nandī, 10a.	Śāśvata, 7b, 12b.
Nairuktāḥ, 10a.	Sudharmasvāmī, 4a.
Pāṇinīsūtra, 6a, 7b.	Hārāvali.

Vallabhagaṇi, the author of the present commentary, was a celebrated Jain writer. He belonged to the Kharatara line of Jain priests and was a pupil of Jñānavimalagaṇi,⁵ who wrote a commentary on the *Śabdabhedapraśāsa* of Maheśvara in A.D. 1598.⁶ The *praśasti* which contains the names of the Jain priests belonging to the Kharatara-gaṇa line of preceptors reads as under :—

श्रीमत्स्वरतरगच्छे चक्रे यैः सन्नवाङ्मवरवृत्तिः ।
 श्रीमन्तोभयदेवाचार्या ज्यायां विरेजुस्ते ॥ १ ॥
 तत्पट्टे जिनवल्लभसूरिवराः सर्वशास्त्रपारीणाः ।
 तेषां शिष्या आसन् श्रीमज्जिनदत्तसूरीन्द्राः ॥ २ ॥
 विख्यातयशस्तृतेषां पट्टकमेण सूरयः ।
 श्रीमच्छ्रीजिनमाणिक्याचार्याः क्षमायां विरेजिरे ॥ ३ ॥
 अकञ्चराख्यक्षितिपालपर्वचन्द्रप्रमाणोक्तिमुलम्बशोभाः ।
 लोकत्रयीव्याप्तयशोविताना राजन्ति ये साधुयुगप्रधानाः ॥ ४ ॥
 श्रीधर्मराज्यं परिपालयन्तु दुर्वादिदर्पं च निवारयन्तु ।
 तत्पट्टपूर्वाञ्जलसत्पससिषु तेषूदितश्रीजिनचन्द्रसूरिषु ॥ ५ ॥
 त्रिभिर्विशेषकम् ॥
 अकञ्चराख्यक्षितिभृत्समक्षं येन प्रपेदे पदमुत्तमं महत् ।
 गुरोः कराच्छ्रीजिनचन्द्रनाम्नः विराजति श्रीजिनसिंहसूरौ ॥ ६ ॥
 शुशुभिरे जिनराजमुनीश्वराः खरतराङ्गणाभ्रदिवाकराः ।
 तदनुभूरियुगा जयसागरा जगति रेजुरनुत्तमपाठकाः ॥ ७ ॥

⁴ This list is prepared from Ms. No. 285 of 1873-74 referred to above.

⁵ श्रीज्ञानविमलपाठकसत्पादाभोजचंचरीकेण ।

श्रीवल्लभेन रचिता शिल्पोक्त्याङ्गे शुभा टीका ॥

⁶ See my article in *IHQ* 19, 179-81.

तेषां शिष्या मुख्या दक्षा आसनदृश्यगुणलक्षाः ।
 श्रीरत्नचन्द्रनामोपाध्यायाः साधुपरिधायाः ॥ ८ ॥
 तत्पट्टस्फुटपद्मप्रकाशनोदारसूरसंकाशाः ।
 श्रीभक्तिलाभनामोपाध्यायाः शास्त्रकर्तारः ॥ ९ ॥
 धीमन्तोऽन्तिषदस्तेषां कलाकौशल्यपेशलाः ।
 समजायन्त राजन्तः ग्रन्थार्थाम्भोधिपारिणः ॥ १० ॥
 चारित्रसागरपावकभावाकरसद्गुणीश्वरा दक्षाः ।
 श्रीचारुचन्द्रवाचकधुर्याः स्मर्या मुनीशानाम् ॥ ११ ॥
 तेषां क्रमशः पट्टव्योमाङ्गणशीतरश्मिसंकाशाः ।
 श्रीभानुमेरुस्त्राचकजीवकमशकनककलशाह्लाः ॥ १२ ॥
 तत्र चारित्रसाराख्या उपाध्याया महाजयाः ।
 बभूवुः श्रुतपाथोधिपारीणाः साधुवृत्तयः ॥ १३ ॥
 तत्पट्टे समभूवन् विलसत्संवेगरङ्गसंलीनाः ।
 वाचकपदप्रधानाः श्रीमन्तो भानुमेर्बाह्लाः ॥ १४ ॥
 सौभाग्योद्य निविरुतीजडतां यज्जयन्तं तयती (?) ।
 येद्वक्त्राम्भोरुहसुवसतिं प्राप गौर्लालसीति ।
 गम्भीरा ये बृहदुदधयः स्फूर्तिमन्तो महान्तो
 गाम्भीर्यादिप्रथितसगुणैर्वर्ण्यलावण्यपुण्याः ॥ १५ ॥
 जयन्ति क्षमायां समयकथितज्ञानविमला-
 श्विरं चक्षत्पाठकपदवराज्ञानविमलाः ।
 लसत्तट्टे (?) वचनरचना रञ्जितजना
 महावादिप्राजप्रमितिकथनावात्पविजयाः ॥ १६ ॥ युग्मम् ॥
 वैराग्यरससंलीनास्तद्गुरुभ्रातरोऽधुना ।
 विजयन्ते महान्तः श्रीतेजोरङ्गगणीश्वराः ॥ १७ ॥
 तेषां जयन्ति जयिनः सुनया विनेयाः
 सद्भागधेयमतिमत्प्रतिवाद्यजेयाः ।
 श्रीज्ञानसुन्दरसुधीजयवल्लभाद्या
 वाग्देवता प्रतिसत्प्रतिभा प्रधानाः ॥ १८ ॥

In the concluding portion of the *prāśasti* the author records the date of composition which is given as the 7th day of the bright half of the month Caitra of the Vikrama era 1654.⁷ This date corresponds to Sunday, the 2nd April 1598⁸ of the Christian era.

⁷ वेद्विचरसपृथ्वीसंख्ये वर्षे सुनागपुरनगरे

मधुमासाद्ये पक्षे मूलार्के सप्तमीतिथ्याम् ॥

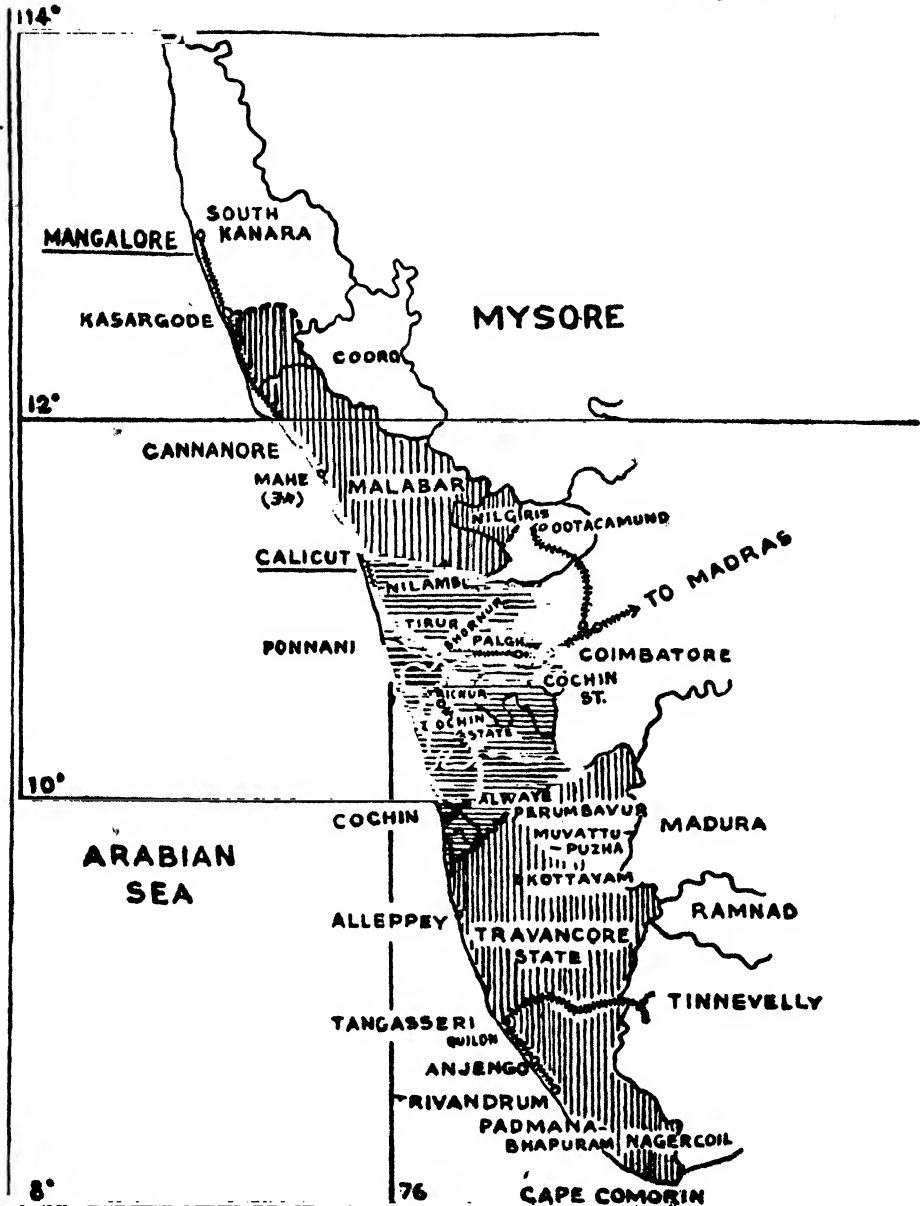
⁸ PILLAI : *Indian Ephemeris*, 6. 398.

MAP OF KERALA SHOWING THE THREE MAIN DIALECT DIVISIONS

Scale 1 inch = 64 miles

REFERENCE

- District or state boundary
- - - Boundary of Kerala (or the Malayalam Speaking area).
- ~ Dialect boundary
- == Railway



NOTES ON COLLOQUIAL MALAYĀLAM.¹

By

A. C. SEKHAR and C. R. SANKARAN

[*Abstract*: The present paper is an attempt at the dialect geography of Malayālam, giving the salient features of colloquial Malayālam. It is an original study, although it may resemble to some extent the paper on the "Vulgar Pronunciation of Tamil" by Gordon MATTHEWS (*BSOS*, Vol. X, part 4). A helpful classification such as vowel changes, and changes and omissions of consonants is attempted here for the first time. This paper shows how to the dialect geographer, Kēraḷa offers a very interesting field.]

Spoken Malayālam differs in many respects from the written language, and these differences may be classified as (1) the changes of vowels and consonants and (2) the omission of single sounds and whole syllables. These changes take place according to different "rules" in different dialects. That is to say, the conversational Malayālam of Travancore is different from that of North Malabar, but the differences are uniform more or less.

For the purpose of the present study the Malayālam speaking area (Kēraḷa) may be divided into three regions: (1) South Kēraḷa (comprising the Native State of Travancore); (2) Central Kēraḷa (comprising the Native State of Cochin and the major part of the South Malabar district); and (3) North Kēraḷa (the Malayālam speaking area to the north of Calicut). This division is based upon broad differences in the dialects, the main features of which are discussed below.

1. *Vowel Changes*: As one journeys from the southern extremity of Kēraḷa to the north, what strikes one most is the vowel changes which mark out the dialects distinctly. For example, the initial *u-* in several common words such as *uḷḷa* and *uṇṇṇ* is turned into *o* in S. K.,² whereas it is clearly articulated or changed into the neutral *ə* in the dialects of the rest of Kēraḷa. This is a very ancient peculiarity of S. K. and is seen even in the Old Malayālam works and inscriptions hailing from Travancore.³

The change of initial *u-* into *o-* is not however a peculiarity of S. K. alone; it is, in fact, a feature of the Malayālam language in common with the other Dravidian languages.⁴ But in the rest of the Malayālam dialects this change takes place only when the initial *u* is followed by a short consonant and *a* in the next syllable; e.g. *uṛakkam* > *oṛakkam*, *uṇakkam* > *oṇakkam*, *uṇappṇ* > *oṇappṇ*, etc.

¹ GUNDELT in his "*Grammar of the Malayālam Language*" and Professor L. V. RAMASWAMI AIYAR in his numerous writings have noticed several of the colloquialisms discussed here.

² Henceforward S. K. = South Kēraḷa, C. K. = Central Kēraḷa and N. K. = North Kēraḷa.

³ Cf. *Uṇṇunilisaṇḍēṣam, kōkasandēṣam, Travancore Archaeological Series* Vol. IV, insc. No. 1, Dated in Kollam 149, etc.

⁴ Cf. *Primer of Dravidian Phonology*—K. V. SUBBAYYA, I.A. Vol. 38, p. 167; *Materials for a Sketch of Tulu Phonology*—L. V. RAMASWAMI AIYAR, *Indian Linguistics*, Vol. 6, p. 433; *Dravidian Studies II*—T. BURROW, *BSOS*, X, 2.

In positions other than initial, *u* has, generally speaking, only one important variant, and that is the half-close unrounded δ . "It is a vowel sound somewhere between the first and second vowel sounds of *woollen* (*uulən*)."⁶ As in Tamil, it occurs medially in a final closed syllable, especially in the final syllable *um*; e.g. *aṭikkum*, *paṭṭum*, etc. The medial *-u-* in *kaṭukka*, *miṭukkə*, etc. and the final *-u* in the first word of *kaṇṇu paṇaṇṇu*, *tonṇu poṭṭicu*, etc. where it is followed by a consonant in the next word, also undergoes this modification. C. and N. K. have, however, their own peculiar variants: In C. K. medial *-u-* is changed into *-a-* in many common words; e.g. *koṭukku* > *koṭakku*, *koḷuttu* > *koḷattu*, *paḷuttu* > *paḷattu*, *kaḷuki* > *kaḷaki*, etc. when the *-u-* is followed by a back or a dental consonant, *-u-* > *-i-* in C. and N. K. e.g. *cerupḍ* > *cerippḍ*, *parupḍ* > *parippḍ*, *irupḍ* > *iripa(va)ṭ*, *parukkḍ* > *parikkḍ*, *parutti* > *paritti*, etc. when followed by a labial, dental or back consonant, long or short. In N. K. there is a strong tendency to change final *-u* into the unrounded (lip-spread) variant, *-u* and this is generally the case among all the people except the upper class Nairs and Brahmins.

Moplahs (Malabar Mahomedans) and the lowest classes seldom pronounce *u* in any position with any degree of clearness; they generally substitute in its stead the lip-spread *u*, except in a few words such as *umma*, *upḍ*, etc.

The change of initial *-i* into *-e* in words where *e* forms do not have a different meaning, and when *i* is immediately followed by a short consonant and an open vowel in the next syllable, is a characteristic of the colloquial Malayālam of all Kēraḷa⁷; e.g. *itaḷ* > *etaḷ*, *iḷavam* > *eḷavam*, *iṇayattu* > *eṇayattu*, etc. The change of the enunciative *a* of the initial consonant of many Indo-Aryan loan words is also a general characteristic; e.g. *lajja* > *lejja*, *jayam* > *jeyam*, *daya* > *deya*, *laḍḍu* > *leḍḍu*, *gandham* > *gendham*, etc.⁸

The change of the initial group *ava-* into *ō* is a peculiarity of the vulgar dialect of N. K.; and of Pulayas and other low classes and Moplahs all over Kēraḷa; e.g. *avanṭe* > *ōṇṭe*, *avaḷuḷe* > *ōḷṭe*, *avaṭṭkkḍ* > *ēṭṭkkḍ*, etc.

The neutral vowel *ə* is a common feature of colloquial Malayālam: unaccented *a*, *u*, and *o* are changed into it; e.g. *Rāman* > *Rāmən*, *veḷutta* > *veḷətta*, *appḍ* > *appəḷḍ*, etc.⁹

As a general feature of colloquial Malayālam it may be stated that the length of vowels decreases as you go from the South to the North of Kēraḷa. (This is, of course, a tentative subjective observation, and nothing can be definitely stated without objective experimental proofs on the lines similar to those of HEFFNER and ROSITZKE.)¹⁰ The combination of short vowels with certain omissions and changes which will be discussed below, give the colloquial of the C. and N. K. an appearance of great speed of utterance; while the lack of these omissions and changes and greater length of vowels make the colloquial of S. K. sound as sing-song and bookish.

Changes and Omissions of Consonants :

Surds are clearly pronounced in Malayālam, as in Tamil, only in initial positions or when doubled, and inter-vocal plosives are softened into voiceless mediæ or half-voiced mediæ. As Professor L. V. Ramaswami AIYAR observes, careful Malayālam speakers give to all inter-vocal plosives, and often to nasal plosive combinations also, the value of voiceless mediæ; e.g. *kuḍḍil* (hut), *paṇḍḍ* (ago), *vaṇḍi* (cart) *pandḍ* (ball) etc.¹⁰ "In the colloquial of

⁶ FIRTH, *Short Outline of Tamil Pronunciation*, p. xxx. ARDEN, *Tamil Grammar*.

⁷ Cf. *Materials for a Sketch of Tulu Phonology*, p. 452. (*A Grammar of the Malayalam Language* (GUNDERT) p. 6.

⁸ Cf. K. GODAVARMA, *BSOS VIII*, 559 ff.

⁹ *Eighteenth Century Malayalam Prose by Christians*—L. V. R. AIYAR N. I. A. Vol. III, p. 22.

¹⁰ ROSITZKE, H. A. Vowel length in General American Speech, *Lang.*, 15, 99-109 (1939), HEFFNER R. M. S. A. Note on vowel length in American Speech, *Lang.*, 16 33-47 (1940), cf. also *Am. Speech*, Vol. XVIII, pp. 208 ff., 1943.

¹⁰ Plosives in Dravidian—L. V. Ramaswamy AIYAR, *I. A.* Vol. 58, p. 35.

the lowest classes where purity of pronunciation is hardly cared for, and where elisions, contractions, and holophrastic changes are extremely common, not only inter-vocal surds but initial surds also become sonants.¹¹

Except in initial position, *k* undergoes changes. In S. K. it is seldom or never omitted as is done in the dialects of other regions; it is only softened into a fricative or sometimes changed into a long *ḡ*; e.g. *varukayilla* > *varilla* in C. and N. K. but *varuḡayilla* or *varḡḡla* in S. K., *ceyyukayilla* > *ceyyilla* in S. and N. K. but *ceyyḡḡla* in S. K., *pōkunna* > *pōṇa* in C. K. but *pōḡkunna* in S. K. These changes of *k* are seen in the dialects of C. and N. K. also where it cannot be omitted; e.g. *ceyyukayum vēṇam* > *ceyyḡḡm vēṇam*, *naṭikkunayam vēṇam* > *naṭikkḡḡm vēṇam* etc. = *k* is sometimes changed into *h*, e.g. *mahan* > *mahan*, or into *v*, e.g. *pōkunna* > *pōvunna*, *cukappḡ* > *cuvappḡ*. The last word is heard in at least six different forms, viz., *cukappḡ*, *cuvappḡ*, *cumappḡ*, *covappḡ*, *cevappḡ* and *cekappḡ*, and affords a very interesting example of the influence of the colloquial on the development of a literary language.¹²

The double *k* in words like *vekka*, *piṭikka*, *aṭikka*, *muṭikka*, etc. are pronounced in C. and S. Kēraḷa as *kk*, a tense voiceless plosive. There is a marked tendency in N. K. to pronounce these words with *kk*. On the other hand, *kk* is heard in S. K. in words like *vikḡḡn* < *vilkkuvān*, *nikkḡ* < *nilkkuka*, etc. which are pronounced with *kk* in C. and N. K. Moplahs do not generally pronounce *kk*. Similar confusion exists in the use of *ṇṇ* (guttural nasal) and *ṇṇ* ("a pre-velar articulation intermediate between *ṇ* and *ṇ*") which exist side by side in Malayālam e.g. *teṇṇa* (S. K.) *teṇṇa* (C & N K) *Kuraṇṇan* (S. and N. K) *kuraṇṇam* (C. K.), etc.

v is often omitted in inter-vocal positions in the colloquial of all parts of Kēraḷa; e.g. *viṭuvikka* > *viṭikka*, *kaccavaṭam* > *kaccōtam*, *varunnuvō* > *varunnō* (S & N. K.) *varuṇṇo* (C. K.). *v* is changed into *b* in certain words in C. and N. K.; e.g. *ivite* > *ibate*, *avite* > *abate*, etc. Moplahs generally pronounce *b* in the place of *v*.

Initial consonants of words preceded by vowels of the previous words in the stream of speech are often omitted for the sake of euphony; e. g. *nalla vaṇṇam* > *nallōṇam*, *iṭṭu veccu* > *iṭṭeccu*, *ceylu koṭṭām* > *ceytoḷam*, etc.¹³

l is omitted in inter-vocal and final positions; e.g. *ṇaṇṇaḷute* > *ṇaṇṇaṭe* *naṇṇaḷute* > *niṇṇaṭe*, *maṇṇaḷute* > *maṇṇaṭe*, etc. and *varumpōl* > *varumpō*, *kāṇumpōl* > *kāṇumpō*, *ippōl* > *ippō*, etc.¹⁴ In N. and S. K. there is a tendency to change *-ōl* into *-am*; e.g. *ippōl* > *ippam*, *appōl* > *appam*, etc.

l is omitted in medial and final positions.¹⁵ Final *-l* is omitted when it precedes a consonant; *paṭikkal nilkkaṇṇa* > *paṭikka nilkkaṇṇa*, *aṭiyil piṭiccu* > *aṭiyippiṭiccu*, etc. Medial *-l-* is omitted when it precedes a double consonant; *vāṭilkkal* > *vāṭikkal*, *kāḷkkal* > *kākkal*, etc. The same happens to *-l*; e.g. *tāḷṭti* > *tāṭti*, *cūḷṇnu* > *cūṇnu*, etc.

The retroflex continuant *ḷ* is pronounced clearly, whenever it is pronounced, by all Malayālis except the Moplahs and the very low classes who substitute it with *y*.¹⁶

When voiced consonants or plosives (which are softened in pronunciation) follow nasals, the compound is generally replaced by the double of the nasal variety of the voiced consonant;

¹¹ *Ibid.*, p. 37.

¹² The first three forms are seen on pp. 29, 22 and 23 of the Malayālam translation of the *Malabar Gazetteer*. The same remark applies to forms like *cereppu* discussed above.

^{13a} Cf. R. T. BUTLIN, *BSOS*, VIII, p. 438.

^{13b} Cf. GUNDELT, p. 19.

¹⁴ & ¹⁵ See Kurcan NAMBIYAR'S "*Tuḷḷalas*."

¹⁶ There was a humorous schoolmaster who used to give exercises in the pronunciation of *ḷ* to his Moplah students by asking them to repeat: *Nāḷiyēṭuttu kōḷiye eṇṇṇappōl nāḷiyum kōḷiyum kuṭe vaḷukki vaḷakkuṭiyu vīnu*. The boys invariably answered; *Nāyiyēṭuttu kōyiyēṭuttu nāyiyōm kōyiyōm kuṭi bayikki bāyakkuyiyil vīnu!*

e.g. *cēṅkalam* > *cēṅṅalam*, *kuḷam-kāra* > *kuḷaiṅṅāra*, *neñcō* > *neñṅō*, *daṇḍam* > *daṇṇam*, '*kuḍumbam*' > *kuḍumṇam*, *maṇḍapam* > *maṇṇapam*, *candaṇam* > *cannaṇam*, *Cāmuṇḍi Cāmuṇṇi*, etc.¹⁷ This is a very old phonological change and has perhaps been chiefly responsible for differentiating the Malayālam from the parent language. Inscriptions show that even as early as the tenth century of the Christian era this change had become so widespread that the name *Saṅkaran* was sometimes written as *Saṅṅaran* as it was obviously pronounced in that manner.¹⁸

n is sometimes changed into (or interchanged with) *ṇ* both in Sanskrit and native words ; e.g. *kaṇmaṣam* < *kalmaṣam*, *naṇma* > *nalma*, *guṇman* < *gulmam*, *poṇṇū* > *poḷṇū*, etc.¹⁹

Sanskrit dental plosives occurring in medial or final positions are generally evaluated as *l* in Malayālam ; e.g. *ulsāham*, *salguṇam*, *ulghāṇam*, *tālparyam*, *albhutam*, *ulbhavam*, *ulsavam*, etc.²⁰

The change of *nn* into *ṇ* is a peculiarity chiefly of C. K. e.g. *varunnilla* > *varaṇilla*, *toṭunnatokke* > *toṭaṇatokke*, *koṭukkunna pōle* > *koṭakkāṇa pōle*, etc. *tt* is the change found in similar contexts in S. K. ; e.g. *varunmilla* > *varattilla*, *kāṇunmilla* > *kāṇattilla*, etc.

r > *ṛ* is also chiefly a C. K. change ; *ciri* > *ciṛi*, *śruti* > *śṛuti*, *bhramam* > *bhṛamam*, etc.²¹ In this connection it may be stated that liquid sounds are generally heard with increased "density" in C. K.

sc and *cc* are generally softened into *śś* ; e.g. *niscayamilla* > *niśśayamilla*, *Eluttaccan* > *Eluttaśśan*, *puḷiccakari* > *puḷiśśēri*, *Talaccēri* > *Talaśśēri*, *-kuṛicci* > *-kuṛiśśi*, *nāḷicceydu* (old inscriptions) *nāḷiśśe* (modern colloquial).²² Aspirated consonants lose their aspiration in the colloquial ; e.g. *kapham* > *kaṇam*, *mukham* > *mukam*, *nakham* > *nakam*, *phalam* > *palam*, *phalaka* > *paḷaka*, etc.

The foregoing notes are by no means exhaustive ; they record only some of the salient features of colloquial Malayālam. We are inclined to think that dialectally Kēraḷa can be divided at least into a dozen regions. Then there are the dialects of the different castes of Kēraḷa to be studied on the lines of Jules Bloch's important investigations for Tamil.²³ In short, to the dialect geographer Kēraḷa offers a very interesting field.

¹⁷ Cf. GUNDERT, p. 11.

¹⁸ See T. A. S. Vol. IV. No. 1. Dated in Kollam 149 (= A.C. 973).

¹⁹ Cf. GUNDERT, p. 12.

²⁰ A South Indian (Malayālam) Evaluation of Sanskrit—L. V. R. AIYAR, *I. H. Q.* Vol. XIII, pp. 279 ff.

²¹ & ²² Cf. "A Primer of Malayālam Phonology"—L. V. R. AIYAR, *BRVRI*, VIII, 79.

²³ Castes et Dialects en Tamoul—J. BLOCH *Mémoires de la Société Linguistique de Paris*, V. 16, Pt. I.

MISCELLANY

A NOTE ON THE COINS FOUND IN THE DISTRICT OF RATNAGIRI¹

By

B. K. APTE

In my research tour in the district of Ratnagiri in the month of December 1942, I collected some 28 silver and copper coins from different places. Almost all these coins simply add to the general stock without giving any new information, except in the case of one which is of a rare type and hence deserves special attention. Coins that are already published or

<i>Designation</i>	<i>Mint</i>	<i>Date</i>	<i>Metal</i>	<i>Find-Spot</i>
1. Ala-ud-din Khalji	..	..	B	Dabhol
2. Firuz Shah Bahmani	Ahasanabad	813 A.H.	AR	Pulaye
3. Firuz Shah Bahmani	Ahasanabad	818 A.H.	"	Jaygad
4. Ahmad Shah Bahmani	..	..	Æ	Dabhol
5. Ahmadshah bin Ahmad	..	..	"	"
6. Ahmad Shah bin Ahmad Shah	..	..	"	"
Bahmani ?				
7. Bahmani cop- per coin	..	..	"	"
8. Shahjahan	Junagad ?	1052 A.H.	AR	"
9. Aurangzeb	Akbarabad	1069 A.H.	"	Parashuram
10. Aziz-ud-din Alamgir II	Shahjahanabad ?	1181 A.H. ²	"	"
11. Aziz-ud-din Alamgir II	"	..	"	"
12. Aziz-ud-din Alamgir II	"	..	"	Jaygad
13. Shah Alam- Bahadur	Murtazabad (Miraj)	21 Regnal year	"	"
14. Dochasmi	Muhyabad (Poona)	1237 A.H.	"	Parashuram
15. Ankushi		1243 A.H.	"	Jaygad
16. Gaikwad	..	..	"	Dabhol
17. Shivarai	..	Shivaji's Period	Æ	Ilaye
18 to 21. Shivarais	..	Peshwa Period	"	3 from Dabhol 1 from Vijayadurg
22. Falus	..	Post-Aurangzeb Period	"	"
23. A copper coin of Nizam	..	..	"	"
24. East India Co's coin " Ardha Paisa "	..	..	"	"

¹ I am highly indebted to Mr. G. H. KHARE of Bharata Itihasa Samshodhaka Mandal, Poona, for the valuable help he rendered me in preparing this note.

² The dates on coins No. 10, 11, 12 are puzzling.

of the common type, are described in a tabulated form to avoid repetition while the one of the rare type is discussed in detail. Addition to the stock of the common type may help to indicate the volume of those coins in hoard or in circulation or both, at a time when they were current. The find-spots of the coins are given in the table as they show their circulation, i.e. the extent of their acceptability.

Of the remaining four coins out of 28, 3 are counterfeit and one is unidentifiable.

Coin No. 13 in the table is of the rare type as only a few of its sort have been found so far.

Obverse	Reverse
श्री	श्री
गणपती	पंतप्रधान
عالم بجا در شاه	مبعت
باد شاه غازی	سر ۲۱ خلوس مالوس
سنة ۱۲۲	صرب مرتضی آباد

All the words on both the sides are legible except the last one on the reverse side which is the name of the place where the coin was struck. The name of the place as it can be made out is Murtazabad i.e. Miraj of the present day, a junction on the Southern Maratha Railway line in the district of Belgaum.

In the letters *مرتبضی* can be easily identified, the following *ت* is without its two head dots. The letter *ض* is quite clear but its lower portion joining the (aliph)

follows it is clipped off along with the lower portion of the letters coming after *ت* (i.e.)

ب, *پ* is not to be seen at all, while only the upper portion of *ت* and following it are seen. With all the short-comings the name of the place i.e. the mint-name cannot but be Murtazabad.

In the fourth line of the reverse side the figure in the tenth's place of the regnal year is ۲. But the figure following ۲ may either be ۱ or ۷. The writer here takes it to be ۱

. In the last line of the obverse side three figures of the Hijra year are quite legible. But it can very easily be inferred that the fourth figure (i.e. the figure in the unit's place) must be missing.

From the words *पंतप्रधान* (*Pantapradhāna*) prime-minister, the title of the Peshwas and *गणपती* (*Ganapati*) the name of their family deity, it cannot be stated unequivocally that the coin was struck by the Peshwas in their mint; because it is equally possible that it could have been struck by the Patwardhans of Miraj as the mint-name on the coin is Murtazabad i.e. Miraj, the seat of their Jagir. Ganapati was also the latter's family deity. The word *Pantapradhāna* in this case, it can be said, was preserved by the Patwardhans as the Peshwas were their superiors. It must be remembered that coinage was free in those days, and some Sardars were allowed to have their own mints.

Three similar coins are known, but they are without the mint-name.³

From the very limited number of these coins available, it is difficult to decide whether they belong to the Peshwas or Patwardhans. Whatever the case may be, the fact remains that the name of the Mughal Emperor was retained by the Peshwas on their coins, a mark of the former's *de-jure* sovereignty.

³ *Journal of the Numismatic Society of India*, Vol. 4. 1.

ABSTRACTS OF THESES

" HISTORICAL GRAMMAR OF OLD KANNADA "

By

G. S. GAI, Ootacamund.

§ 1. An attempt is made in this thesis to write the grammar of Old Kannaḍa as studied from the inscriptions of the 8th, 9th and 10th centuries A.D. It seeks to find out the actual state of the Kannaḍa language at a definite period in its history viz., 8th-10th cent.¹ This work was undertaken from the point of view of Diachronic Linguistics.² This is in consonance with the new methodology in linguistic science inaugurated by KURYLOWICZ and BENVENISTE in Europe.³

It is needless to say that these investigations in the diachrony of the Kannaḍa language should be carried out further up to modern times, taking into consideration both inscriptions and literary works.⁴ Similar investigations must also be proceeded with in regard to the other cognate languages of the Dravidian family, so that it will be made possible to produce comprehensive historical and comparative grammars as well as dictionaries, on scientific lines. The present attempt at the Historical Grammar of Old Kannaḍa, it is hoped, will fit into this larger scheme.

Kannaḍa, in its old phase, as studied through the inscriptions of the 8th, 9th and 10th cent., presents the following features :

§ 2. *Phonemic variations* : The following forms represent certain qualitative phonemic variations.⁵

¹ The present thesis is based on the model of the work "A Grammar of the Oldest Kanarese Inscriptions" by A. N. NARASIMHIA (Published by the University of Mysore, 1941) which deals with the Kannaḍa inscriptions of the 6th and 7th cent. A.D. A few illustrative forms are cited from this book. Wherever possible, an attempt has been made throughout the thesis at a comparative study of the condition of the Kannaḍa language to be found in the 6th and 7th cent. with that in the 8th, 9th & 10th cent. as studied through the inscriptions. This will, it is hoped, enable the reader to understand the historical development of the Kannaḍa language from the 6th to 10th cent. A.D.

² In order to facilitate the comparison of the synchronic elements of Kannaḍa and Tamil, two important cognate members of the Dravidian family, an attempt at a chronological study of linguistic facts within Kannaḍa and Tamil of the 7th to 10th cent. is indicated in the course of the thesis.

³ KURYLOWICZ, *Études indo-européennes*.

BENVENISTE, *Origines de la formation des noms en indo-européen*.

These two scholars in Europe have been foremost in formulating the new fundamental conception of diachronic-synchronic linguistics in modern times. This conception can be explained by stating that (i) the linguistic facts of a particular language must be first studied on a strictly diachronic scale and (ii) then only linguistic facts of a particular language should be compared with similar facts of another cognate language belonging to the same period. See also S. M. KATRE *ABORI* 20. 277 & C. R. SANKARAN *ABORI* 21. 240.

⁴ The linguistic facts whose diachronic relationship are the object of our investigations and which are the fixed points in historical processes are undoubtedly ascertainable from inscriptions and literature.

⁵ By qualitative phonemic variation is meant the substitution of one phoneme by another of a different quality in the same speech-form. (Here although no alteration of meaning occurs, the phoneme and its substitute are not designated as *variants* of a single phoneme, for both of them occur as *distinct phonemes* in other speech forms) : This qualitative phonemic variation occurs also in the case of certain loan-words.

The word phoneme is preferred here for reasons of greater scientific precision, as it is a very useful concept in modern linguistics. A phoneme is a class of speech-sounds and it is a unit which is incapable of being further divided into smaller units.

ā/e ⁶	8th. <i>vasudhe</i> 'earth': cf <i>vasudhā</i> . 9th. <i>dise</i> 'direction': cf <i>diśā</i> . 10th. <i>pūje</i> 'worship': cf <i>pūjā</i> .
i/e ⁷ & u/o	8th. <i>idīr</i> 'in front': 9th. <i>edīr</i> . 9th. <i>kuḍuva</i> 'that which is to be given': cf. <i>koḍuva</i> . 8th. <i>mudal</i> 'first' 9th. 10th. <i>modal</i> .
ṛ/ṛi ⁸	8th. 10th. <i>riṣiyaru</i> 'sages': cf <i>ṛiṣi</i> . 10th. <i>Nṛipatuṅga</i> cf <i>Nṛpatuṅga</i> .
ṭ/ṭ	10th. <i>bhaṭāṛige</i> 'to the venerable one': 8th. 9th. <i>bhaṭāra</i> .
y/j	10th. <i>jaṣam</i> 'glory': cf. <i>yaṣam</i> . <i>jōgi</i> : cf <i>yōgi</i> .
l/p ⁹	8th. <i>kaṭiḷe</i> 'cow': cf <i>kaṭilā</i> . 10th. <i>aḷamkāra</i> 'ornament': cf. <i>alamkāra</i> .
ś/s ¹⁰	8th. <i>śilākarmma</i> 'writing on stone': 9th. <i>śilākarmma</i> . 9th. 10th. <i>sakavarṣa</i> 'Saka year': 9th. 10th. <i>śilākarmma</i> . 10th. <i>Sukravāra</i> 'Friday': 10th. <i>Sukravāra</i> .
s/y	8th. 10th. <i>sāyira</i> 'thousand': 8th. 9th. 10th. <i>sāsira</i> .

§ 3. *Voicing of stops*: Scholars hold divergent views regarding the question of the possible *initial stop* in Primitive Dravidian. According to Jules BLOCH¹¹ Primitive Dravidian had only *voiced stops* in initial position. K. V. SUBBAYYA¹² and L. V. Ramaswamy AIYAR opine that Primitive Dravidian had in initial position only *voiceless stops*.¹³ According to the latter assumption the original *voiceless stops* become *voiced* in the intervocalic position.

- Exs. 8th. *kaṇṭeṭṭu* 'having become baffled' (lit. having lost one's eyes)
< *kaṇ keṭṭu* < *kaṇ keḍu*.
9th. *niṇṭugal* 'a stone that is set up' < *niṇṭukal*.
10th. *beḷgoḍe* 'white umbrella' < *beḷ koḍe*.

§ 4. *Densalization*: Instances like 8th. *pēriṅge* (N. K. *hēriṅge*) 'per load', 9th. *lōṇṭada* 'of the garden' and 10th. *eṇṭake* (N. K. *rekke*) 'wing' are met with in the

⁶ Cf. *laghuva*-
pp -*ēkārāman-atvaman -ira-*
d -*ākāram bahuḷādinde taḷedire līṅam*

SMD 82.

Here and in the following pages only one or two examples are given from each century to illustrate the point at issue.

⁷ For a detailed discussion on the interchange of i/e and u/o see CALDWELL CDG³ 180-182; LSI 4. 288.

K. V. SUBBAYYA, A Primer of Dravidian Phonology, IA 38. 160.

T. N. SREEKANTAIYA, The Mutation of i, u, e & o in Kannaḍa, *Proceedings of the All India Oriental Conference*, Mysore, 8. 769-800.

T. BURROW, Dravidic Studies, BSOS 9. 8. 711-23 & 10. 2. 289-97.

A. N. NARASIMHIA, GŌKI 169-70.

⁸ *paḍādiya ṛ -tvakk -i-*
tva-d-e-tva-d-a-tvada vidhānam -u-
tvam bahuḷam

SMD 268.

⁹ It is possible that this lingual -l- might have been the result of the pronunciation of these words by a certain dialect group or the sculptor might have carved it according to his own pronunciation.

¹⁰ *Sakkadadā śa-śa-dvīṭaya-*
kk-akkum sa-tvam prasiddhiyind-
elleḍeyol.

SMD 253.

¹¹ cf. Sanscrit et dravidien, BSL 24.

¹² K. V. SUBBAYYA, A Primer of Dravidian Phonology. IA 38. 195.

L. V. Ramaswamy AIYAR, Kui Words & Dravidian Origin, JORM 4. 171-172.

¹³ The assumption is made that accent shifts and assimilation will explain the initial voiced stops of these languages that have them. See M. B. EMENEAU, Echo-Words in Tōḍa. NIA 1. 11.

inscriptions studied. The preconsonantal nasal is retained in these examples. This shows that the phenomenon of the disappearance of the preconsonantal nasal was not yet complete during the period. It is interesting, however, to find forms like *pēṅge* and *pēṅge* in one and the same inscription of the 8th century.

§ 5. *Hiatus*: Hiatus is met with in many words in the 8th. cent. and its frequency of occurrence is less in later centuries,

Exs. 8th. *Kaṇci Abbe, Dāsi amman, Eṇe appor.*

Glides -y- & -v- have been used in a large number of words, probably to prevent hiatus. Forms with -y- are greater in number than those with -v- in the inscriptions studied:

- Exs. 8th. *Kaṇci-y-oḷ* 'in *Kaṇci*'.
koḍe-y-ān 'umbrella'.
 9th. *Vāraṇāsi-y-an* 'Benares'.
keṇe-y-a 'of the tank'.
puḷu-v-āgi 'having become a worm'.
 10th. *aṅgaḍi-y-a* 'of the shop'.
āne-y-um-am 'elephant'.
biḍu-v-udum 'desertion'.

§ 6. *Long and short consonants*: Monosyllabic roots ending in consonant and preceded by a short vowel lengthen the consonant when followed by a vowel.¹⁴

- Exs. 8th. *pon-n-u* 'gold'.
 9th. *maṇ-ṇ-a* 'of the clay'.
 10th. *nel-l-a* 'of the paddy'.

Generally a long consonant is written after -r. (It is not known whether it was pronounced as long).

- Exs. 8th. *avarge* 'to them'.
 9th. *oruvan* 'one person'.
 10th. *arcisi* 'having worshipped'.

Apparently long consonants have become short in instances like

- Exs. 8th. *idake* 'for this' < *idakke* < *idarkke*.
 10th. *baḷike* 'afterwards' < *baḷikke* < *vaḷikke*.

This process of the shortening of long consonants appears to be in a transitional stage during the period under discussion, because forms with both long and short consonants like *baḷikke-baḷike*, *akke-ake* 'may it become' are met with.

§ 7. *Phonemes p, v, ṛ & ḷ*: The phoneme *p* continues to exist unaffected during the 8th and 9th cent., while the change of *p* to *h* in initial position is attested for the first time in the 10th. cent.

- Exs. *hāḍuvōṅge* 'to the singer' < 'pāḍuvōṅge'.
hannivvaru '12 persons' < *pannivvaru*.

This goes to support the statement that *p* is preserved uptill the end of the 9th cent. and that forms with *h*- in the place of *p*- begin to appear in the 10th century.¹⁵

¹⁴ *modalol hṛsv-aika-svara-*
m-odava param svaram -ad-āge n ṇ ḷ y ḷ -aṅga-
lg- udayisugum dvitvam pū-
rva dīrghak-avyayake varṇatatiḡ-advitvam

SMD 69.

¹⁵ GOKI, 2. It has been observed that in the 14th cent. *h*- & *h*- are fully established in place of *p*- & *p*-: *h*- < *p*- had already begun to disappear in the 13th cent. and has now entirely disappeared in the uneducated vernacular pronunciation (*ibid.* p. 5). It is yet to be investigated whether this is the case in all the local dialects. (This points out to the need for extensive investigation on the lines suggested by Jules BLOCH in his paper 'Castes et Dialectes en Tamoul'. MSL 16-1-30).

In the Badaga language this *h*- still remains. But in the absence of dialect atlas for Kannada, the survival of initial *h*. is of no use in dating the advent of the Badagas in the Nilgiris. (Cf. M. B. EMENEAU. 'The Vowels of the Badagas'. LANGUAGE, 15 (1939)—43.

p is also changed to *v*. in the intervocalic position :

- Exs. 8th. *ayvattu* 'fifty' < *ay* + *paṭtu*.
 9th. *kavile* 'cow' < *kaṭile*.
 10th. *giḷivinḍu* 'flock of parrots' < *giḷi* + *pinḍu*.
poṛavoḷaloḷ 'in the outer domain' < *poṛa* + *poḷaloḷ*.

This shows that *v* < *p* is earlier than *h* < *p*.

§ 8. Forms with *b*- in place of *v*- are met with in larger number in the 9th and 10th cent. than in the 8th cent.

- Exs. 8th. *biḷṭa* 'that which is left' < *viḷṭa*.
baḷikke < *vaḷikke*.
 9th. *bandhu* 'having come' < *vandhu*.
basadiya 'of the monastery' < *vasadiya*.
bayalam 'open field' < *vayalam*.
 10th. *bannisal* 'in order to describe' < *vannisal* < *varṇisal*.
barisam 'year' < *varisam* < *varṣam*.
baredan 'wrote' < *varedan*.

Forms having *v* & *b* in the same speech form are also met with :

- Exs. 8th. 9th. *vandu* : 8th. 9th. *bandu*.
 8th. *varedon* : 10th. *baredon*.
 8th. *viḷṭar* : 8th. 9th. *biḷṭa*.
 8th. *viḷdan* 'he fell' : 8th. 9th. *biḷda*, *biḷdu*.
 8th. *Vāraṇāsiyuḷ* } 8th. *Bāraṇāsiyuḷ*.
 9th. *Vāraṇāsiyoḷ* } 9th. *Bāraṇāsiya*.
 10th. *Vāraṇāsiya*
 8th. *Valike*
 8th. 9th. *baḷikke*.
 10th. *baḷike*.

It is interesting to note that forms like *pārvbarumān* 'brahmins' and *Sarvbanandi-dēvargge* are met with in the 9th cent.

§ 9. Many forms with *ṛ* and *ḷ* are met with in the inscriptions studied.¹⁶ The change of *ṛ* to *r* and of *ḷ* to *l* or *r* has taken place during the period under discussion.

- Exs. *ṛ* > *r*. 8th. *adara* 'its' < *adaṛa*.
 9th. *āreneya* 'sixth' < *āṛaneya*.
 10th. *mūreneya* 'third' < *mūṛaneya*.
ḷ > *l* 8th. *biḷadu* 'does not fall' < *biḷādu*.
 9th. *puḷu* 'worm' < *puḷu*.
 10th. *poḷaḷal* 'to praise' < *poḷaḷal*.

In the light of this it is difficult to accept the view that "-ṛ- is maintained throughout the 8th, 9th, 10th & 11th cent. In the 12th cent. we find *r* used for '-ṛ-'; and that "-ḷ- remained unchanged during the 8th & 9th cent.; about the year 930 A.D. words with *l* in place of *ḷ* appear."¹⁸

¹⁶ The difference in meaning in the words with *ṛ* & those with *r* as attested by instances like *kare* 'to milk' : *kare* 'to call', *baṛe* 'to grow dry' : *bare* 'to write' (See GOKI 23-4) goes to show that *ṛ* & *r* were two distinct phonemes in old Kannaḍa even as alvolar *ṛ* & dental *r* are two distinct phonemes in Tamil. In the light of this, it is not clear why Mr. L. V. Ramaswami Aiyar (JOR 10. 253 f.n. 2) takes the view that in old Kannaḍa the phoneme *ṛ* appears to have been regarded as the variant of *r* phoneme with a backward point of articulation on the mouth-roof.

This phoneme *ḷ* is found even in modern Tamil & Malayalam as well as in Baḍaga & Tōḍa languages. In the Tōḍa dialect it is met with today as a development of other phonemes (cf. L. V. Ramaswami Aiyar, Tamil *ḷ*. JORM 9. 140).

¹⁷ There is no definite proof for the assumption here that *ṛ* > *r* & *ḷ* > *l* for ought we know, *r* and *l* might have been written for *ṛ* and *ḷ* respectively and hence might have been only a scriptorial phenomenon.

¹⁸ GOKI pp. 25 and 61-2.

- 1 > r 10th. *arkarindam* 'with affection' < *aḷkarindam*.
pogarttege 'for fame' < *pogaltege*.
negarppin 'with brilliance' < *negalpin*.

§ 10. Assimilation :

- 8th. *aṣṭaguṇa* 'eight-fold qualities' < *aṣṭaguṇa*.
innūra 'two hundred' < *irnūṛa*.
 9th. *binnapam* 'request' < *vinnapam*.
viṇṇapam < *viṇṇāpanam*.
ippattaneya '20th' < *irpattaneya*.
 10th. *Ruddapayyan* < *Rudrapayyan*.
vaṇṇisuttu 'describing' < *vaṇṇisuttu*.

The following forms have not been affected by this phenomenon.

- 8th. *elpattu* '70' (> *erpattu* > *epbattu* in N. K).
 9th. *irdu* 'having been' (> *iddu* in N. K)
 10th. *urkku* 'pride or steel' (> *ukku* in N. K).

Metathesis : 8th. *pannirchārasinum* < *pannirchāsiranum* '12,000'.
 9th. *ṣṭuvibhallava* < *ṣṭuvivallabha* 'favourite of the world'.

Prothesis : 8th. *pannirchārasinum* < *pannirchāsiranum* '12,000'.
irakṣiccidōn 'he who protects' < *rakṣiccidōn*.
 < *rakṣisidōn*.

10th. *vonibhainūra* 'of nine-hundred' < *ombhainūṛa*.

Haplology : 8th. *Anatagunārā* < *Anantagunārā* 'of Anantagunār'.

Syncopation : 8th. *īṛyal* < *īṛiyal* 'to strike, pierce'.

Epenthesis : 8th. *Padumaṇṇan* < *Padmaṇṇan*.

9th. *Indaran* < *Indran*.

10th. *Sakavarīṣam* < *Śakavarīṣam*.

The appearance of this epenthetic vowel indicates the change in the pronunciation of these words. Kēśirāja, the author of *SMD* deals with this phenomenon which he calls *Ṣithiladvitva* (or fleeting double consonant) in *Sūtras* 36-40 and 59, 60. From his treatment it seems that there was much confusion at his time with regard to the pronunciation of these words.¹⁹

§ Gender : The gender of old Kannaḍa generally agrees with the natural sex differentiations except in the case of animals which are brought under neuter gender, perhaps due to an obsessed view that animals have not the power of ratiocination. In the light of this the sweeping generalisation that 'in all the Dravidian languages gender follows sex'²⁰ cannot be tenable.

The following gender (and number) distinguishing suffixes have been found in the inscriptions studied. They are used in the case of masc. nom. sing. of *-a* stems :²¹

8th. *-an*, *-am*, *-am*, *-ōn*, *-on*, *-ōm*, *-om*.

9th. *-an*, *am*, *-am*, *-ōn*, *on*, *-on*, *-āta*, *-ātaṁ*.

10th. *-an*, *-am*, *-am*, *-om*, *-āta*, *-ātaṁ*.

It can be seen from the above that these suffixes are essentially the same in all the centuries. In the 9th and 10th cent. we met with the suffixes *-āta* and *-ātaṁ*.²²

¹⁹ *Ibid.* 93-95.

²⁰ K. V. SUBBAYYA 'A comparative Grammar of Dravidian Languages', *IA*, 40. 181.

In this connection it may be pointed out that the assumption that gender follows sex in the PIE in the oldest phase at any rate, is questioned by competent scholars cf. "that the IG feminine in its original phase, inaccessible to us now, was actually the grammatical expression of the female sex is anything but certain and careful consideration of the data known to us demonstrates that such an assumption is not very likely to be valid" C. C. UHLENBECK, the Indo-Germanic Mother Language and Mother Tribes Complex, *AA* 39. 3. 388.

²¹ *GOKI* III.

²² *-āta* and *-ātaṁ* are personal pronouns (masc. hon. 3. sing.) used here as gender-suffixes.

Exs. 9th. *tappidāta* 'he who commits mistake'.

10th. *nallāta* 'good one'.

It is very remarkable that these suffixes are found only in the case of *-a* stems, whereas stems ending in *-i*, *-u*, and *-e* have no suffix or termination in the nom. sing.

The gender suffixes *-ōn*, *-ōm*, *-on* and *-om* become less and less used in later centuries and it is possible that *-on* and *-om* are from *-ōn* and *-ōm* respectively.

§ 12. *Number*: Singular and plural are the two numbers in Kannaḍa. The singular may be the stem itself or the stem with the gender-suffix (which denotes the number also).

The suffixes for the plural found in the inscriptions studied are:

8th. *-ār*, *-ar*, *-dir*, *-vir*, *-gaḷ*.

9th. *-ār*, *-ar*, *-gaḷ*, *ar-kkaḷ*.

10th. *-ar*, *-gaḷ*, *-ar. kkaḷ*

-ār, *-ar*, *-gaḷ* and *-ar-kkaḷ* are the suffixes used with masc. and fem. stems while *-gaḷ* (only) is the suffix for the neut. stems. Examples with *-ār* and *-ar*, as the nom. pl. suffixes, are greater in number in the 7th and 8th cent. than in the 9th cent. and in the 10th cent. all the forms have only *-ar* as the suffix.

Exs. 8th. *aḷivār* 'those who destroy'.

sandār 'those who go'.

9th. *Mahādeviyār*.

10th. *aḷivar*.

This supports the view that *-ār* is earlier than *-ar*.²³

Cases:

§ 13. *Nominative*: The nominative singular in all the three genders does not possess any case-termination. The stem itself with gender-suffix forms the nominative singular. In modern linguistics the nominative case will be said to possess morpheme-zero.²⁴

Exs. Stem as the nominative singular.

8th. *arasa* 'king'; *Raṇadhāri*.

eltu 'ox'; *ele* 'leaf'.

9th. *maga* 'son'; *Sivadhāri*.

puḷu 'worm'.

10th. *oḍeya* 'owner'; *uppu* 'salt'.

Stem with the gender-suffixes:

8th. *Paḍumaṇṇ-an*, *Kaṇṇ-am*.

aḷiv-on 'he who destroys'.

9th. *magan* 'son'; *Gōleyabhaṭṭ-am*.

aḷid-on, *aḷid-āta* 'he who destroys'.

10th. *Acapayy-an*, *mag-am*, *aḷid-oni*, *tappid-āta* 'he who commits a mistake'.

§ 14. *Accusative*:

The terminations of the accusative case found in the inscriptions studied are:²⁵

8th. *-ān*, *-an*, *-am*, *am*, *-ā*.

9th. *-ān*, *-an*, *-am*, *-am*, *-a*.

10th. *-an*, *-am*, *-am*.

Exs. 8th. *koḍe-y-ān* 'umbrella'; *phalam-ā* 'fruit'; *nālage-y-an* 'tongue'; *paḍe-y-am* 'army'; *kayya* 'hand, side'.

9th. *dattam-ān* 'gift'; *puli-y-an* 'tiger'; *arasan-am* 'king'; *tupṭ-am* 'ghee'; *pala[man-a]* 'field'.

10th. *ēḷge-y-an* 'rise'; *āne-y-am* 'elephant'; *tōmṭam* 'garden'.

²³ GOKI, 115.

²⁴ VENDRYES, *Language* (English Translation) p. 78; cf also O. JESPERSEN, *Analytic Syntax*, London, p. 106.

²⁵ The termination found in the inscriptions of the 6th and 7th century are *-ān*, *-an*, *-am*, *-am*, *-ā* and *-a*. See GOKI, 135.

-ān and -an are used with more or less the same frequency of occurrence in the inscriptions of the 7th and 8th century while the frequency of occurrence in the case of -an is greater than that of -ān in the 9th century. In the 10th century -ān is completely replaced by -an. This strengthens the view that -ān is earlier than -an.²⁶ It is possible that the suffixes -ā and -a are the same as -ān and -an with the final nasals dropped. Hence ān > ā and an > a.

The conjunctive suffix -um is generally added to the case termination of all the nouns.

Exs. mahājanakk-um nagarakk-um 'to the mahājanas and to the city'.

But in the case of the accusative this suffix -um is added to the stem before the case termination.

Exs. 8th. pārvvar-um-ān 'brahmins'.
9th. Vāraṇāsīy-um-an 'Benares'.
10th. mūnūṭ-um-an 'three thousand'.
sāḥiram-um-am 'thousand'.

This leads to the supposition that the accusative case might have been a later development.²⁷

§ 15. Genitive : The genitive case-terminations are :

8th. -ā, -a.
9th. -ā, -a.
10th. -a.

Exs. 8th. Eṇanāgan-ā 'of Eṇanāgan'; Duggamārar-ā 'of Duggamārar'.
Mardūr-ā 'of Mardūr'; Karbūr-a 'of Karbūr'.
9th. Varṣad-ā 'of the year'; Sejōjan-a 'of Sejōja'.
bhaṭṭārar-ā "of the venerable one"; Baṭṭakeṇṇa-y-a 'of Baṭṭakeṇṇa'.
10th. Gojjiga-a 'Of Gojjiga'.
tande-y-a 'father's'.

These suffixes -ā and -a are found side by side in the inscriptions of the 7th and 8th cent. In the 9th cent. forms with -a are found in increasing numbers while in the 10th cent. all the forms have the termination -a only. This goes to support the view that -ā is earlier than -a.²⁸

§ 16. Locative : -uḷ, oḷ, oḷage and -alli are the principal terminations of the loc. case.

Exs. 8th. ūr-uḷ 'in the village' Mardūr-oḷ "in Mardūr".
9th. kōḷe-y-uḷ 'in the fort' Vāraṇā-si-y-oḷ 'in Benares'.
10th. Kāḍiyūr-oḷ 'in Kāḍiyūr'.
Nāḍ-oḷage 'in the country'.

-oḷage and -alli are used separately as morpheme words.²⁹

Exs. Māttam alli baḍivudum biḍuvudum cāpa-vidyeyoḷ.

"Moreover, baḍivudu (trouble or striking) and biḍuvudu (desertion or discharge) occur there (i.e., in Kāḍiyūr) in the art of archery." 9th. mūvattu guḷa gaḷdeyumu oḷagāgi 'including 30 guḷas of land.'

The conjugated form of oḷ < uḷ 'to be' is met with in the 10th cent. Ex. oḷarē 'are !' As the forms with -uḷ are greater in number in earlier centuries and those with -oḷ in place of -uḷ in later centuries, the view that -uḷ is earlier than -oḷ is supported.³⁰

§ 17. Functional Syncretism : The phenomenon of case-variation is met with in the inscriptions studied.³¹

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid., 147.

²⁹ A minimum meaningful unit in a speech-form is a morpheme.

³⁰ GOKI, 153. K. V. SUBBAYYA, 'A comparative Grammar of Dravidian Languages' I.A, 39, 156. L. V. Ramaswamy Aiyar demonstrates that -uḷ is one of the most ancient of Dravidian post-positional terminations in the formation of tense-forms (compound and simple) and in the derivation of new forms; see II, 1, 45.

³¹ See C. R. SANKARAN and G. S. GAI 'Some Ethno-Psychological Features in Dravidian', BDCRI, 2, 1-2, 209-10.

- Nom. for Dat.* 8th. *Idam kādu salipon* *phalaṇṇāṇṇi akkuṃ*.
'He who protects this will get the fruit of ' (*salipon* for *salipōṇṇe*).
Ida kādo *phalam akke* (*Kādo* for *kadoṇṇe*).
- Gen. for Nom.* 8th. *bhaṭṭarārā gāndharuvargge niṇṇisidā pūruva maṇṇyāḍegaḷāṇ*.
"The former honours that were conferred on the singers by the venerable one".
(*bhaṭṭarārā* for *bhaṭṭarar*).
Nirggundad-arasarā āḷe 'while the king of Nirggunda was ruling'.
(*arasarā* for *arasar*).
- Nom. for Gen.* 8th. *Lōkaḍṭiya Eḷaarasar magandir Malliḍiyum* 'Mallaḍi, son of the prince Lōkaḍṭiya'.
(*Eḷa arasar* for *Eḷa arasara*).
- avar āḷu* 'his servant' (*avar* for *avara*).

The Dative of Kinship, a characteristic phenomenon of Dravidian is met with in an inscription of the 10th cent.³²

- Ex. *Nahuṣaṇṇe magam̐ Yayāti* 'Yayāti, son of Nahuṣa (lit. son to Nahuṣa).

§ 18. *Pronouns* : Masc. 3 pers. sing. hon. pronouns are met with in the inscriptions of the 9th and 10th cent.

- Exs. 9th. *ātana* 'his'.
10th. *ātam* 'he'; *ātanindaṃ* 'by him'.

These pronouns are used as gender-suffixes also.

- Exs. 9th. *aḷiḍḍāta* 'he who destroys'.
10th. *tappiḍḍāta* 'he who commits a mistake'.

Properly speaking, there is no relative pronoun in Kannaḍa. The declinable participles with the gender-suffixes are used to serve this purpose.³³

- Exs. 8th. *Idan aḷiḍon pañcamahāpātakan akkuṃ* 'he who destroys this will become guilty of the five great sins'.
9th. *I dharmavaraṃ Kādoṇṇi-āṣvaṃḍhāda phalaṃ* *akkuṃ*.
'He who protects this order will get the fruit of the horse sacrifice'.
10th. *Idan aḷiḍon Prayāgayuvaṃ* *aḷiḍa pātakanuṃ akkuṃ*.
'He who destroys this will become guilty of having destroyed Prayāga etc.'

§ 19. *Numerals* : It is interesting to note that no native words for the numbers thousand and above are found. The word used for thousand is *sāsira* or *sāyira* from Skt. *sahasra*. In the forms for the numerals eleven and twelve, the first word of the compound viz., *pattu* becomes *pan-* cf. *pann-orbbaram* 'eleven persons' < *pattu* + *orbbaran*.

panneraḍu 'twelve' < *pattu* + *eraḍu*. But in the forms for numerals thirteen to eighteen the first word of the compound becomes *padin*.

- cf : *padin-* *aydu* 'fifteen' < *pattu* + *aydu*.
padim- *eṇṇu* 'eighteen' < *pattu* + *eṇṇu*.

In forms like *mūṇu tiṇṇaḷu* 'in three months', *aydu varisakke* 'for five years', the numerals *mūṇu*, *aydu* etc. are used as numeral adjectives by simply placing them before the nouns they qualify. But in *tōṇṇavonda* 'one garden' the numeral *onda* follows the noun *tōṇṇa*.

In forms like *ōr-āḷke* 'one rule' *īrkuḷa* 'two kuḷas' *aymattar* 'five matters', *pannirmattar* 'twelve matters', the shortened form of the numerals *onda*, *eraḍu*, *aydu*, *pannerdu* etc., become the adjectives. These shortened forms are found in the compound numbers also. According to Caldwell they represent the Kannaḍa numerals 'in their briefest, purest and most ancient shape'.³⁴

³² *Ibid.*

³⁴ CDG. 3, 322 ; also GOKI, 185.

³³ GOKI, 167.

§ 20. The causative suffix *-ppu* or *-pu* is met with in the following instances.

8th. *muḍiṭi* 'having caused to end'.

9th. *muḍiṭidar* 'they caused to end themselves'.

10th. *maḍiṭidom* 'he caused to destroy'.

The suffix *-isu* is used in a large number of examples. The traditional grammars in Kannada which belong to a period later than that of these inscriptions mention the suffix *-isu* only. This goes to show that the suffix *-ppu* or *-pu* is earlier than *-isu*.

§ 21. *Participles* : The suffixes for the declinable present-future participle, are *-ppa-*, *-pa*, or *-va*. Roots ending in *-i*, *-u* and *-e* take the suffix *-va-* while those ending in consonants take *-ppa-* or *-pa*.⁸⁵

Exs. 8th. *kuḍu-va* 'giving'.

10th. *eseti* 'shining'.

ōduva 'reading'.

and 8th. *appa* < **āy* (*-āgu*) 'to become'.

10th. *ir-ppa* < *ir* 'to be'.

tōr-ppa < *tōr* 'to appear'.

But in examples like 8th *āl-va* 'ruling', 9th *sal-va* 'continuing', 10th *pogaḷ-va* 'praising', we find that *-va* is suffixed to stems ending in consonants also. This can be explained by taking these speech forms as the result of *sithiladvitva* i.e., an epenthetic vowel *-u-* might have first occurred in the colloquial speech of that period which has later influenced the literary speech also. In other words, these speech forms might have been pronounced as *āluva*, *pogaḷuva* by the common speakers although they were written as *āl-va*, *pogaḷ-va* etc. In N. K. we find them pronounced as well as written as *āluva*, *pogaḷuva* etc.

§ 22. *-āde* are the negative adverbial participial suffixes. They are found in the inscriptions of the 7th and 8th cent.

Exs. 7th. *tappāde* 'without failing'.⁸⁶

8th. *nilālāṇḍe* 'without staying'. *muṭṭāde* 'without touching'.

But in the 9th and 10th cent. inscriptions forms with only *-ade* are met with.

Exs. 9th. *ikkade* 'without laying down or levying'.

10th. *tappade*.

This shows that the suffix *--āde* might have been earlier than *-ade*.⁸⁷

§ 22. *Conjugation* : The personal terminations of the masculine 3rd person are *-ān*, *-ām*, *-an*, *-am* in the singular and *-ār*, *-ar* in the plural. Forms with *-ān*, *-ām* and *-ār* become less in the 9th cent. and in the 10th cent. all the forms have *-an*, *am*, and *-ar*.

Exs.

Sgr.
8th. *paḍed-ām* 'he obtained'
māḍid-ān 'he made'.
koṭṭ-an 'he gave'

9th. *paḍed-am*

pl.
paḍed-ār (They obtained).

koṭṭ-ar 'they gave'.

viṭṭ-ar 'they left'.

kott-ar

10th. *māḍid-ar* 'they made'; *negaḷd-ar* 'they became famous'.

This shows that *-ān*, *-ā* and *-ār* are probably earlier than *-an*, *-am* and *-ar* respectively.

§ 23. *Derivative Nouns* : These are obtained by adding suffixes to the verbal roots or to the nouns.

(i) From verbal roots :

8th. *-ke* : *āḷke* 'rule' from *āl* 'to rule'.

-ge : *osage* 'delight' from *ose* 'to be delighted'.

-vu : *aḷivu* 'destruction' from *aḷi* 'to destroy'.

9th. *-pu* : *Kāpu* 'protector' from *kā(y)* 'to protect'.

- 10th. *-ge* : *ēlge* 'growth' 'prosperity' from *ēl* 'to rise, grow'.
-te : *negarte* 'fame' from *negal* 'to shine'.
pogarte 'praise' from *pogal* 'to praise'.
-vu : *aḷavu* 'measure' from *aḷe* 'to measure'.
-ta : *aṛita* 'knowledge' from *aṛi* 'to know'.

(ii) From other nouns :

- 8th. *-an* : *Indaballiyātan* 'he of Indaballi'.
-me : *mudime* 'headmanship' from *mudu* 'old'.
 9th. *-aru* : *Madeṅgeyaru* 'they of Madeṅge'.

§ 24. *Conjunction* : In the inscription of the 7th cent., forms with the conjunctive suffix *-ūm* are met with. Exs : *Sorkkagāmundaṛūm*. *Eḍeyagāmundaṛūm*. 'Sorkkagāmunda and Eḍeyagāmunda'.³⁸

-ū as the conjunctive suffix is found in the 8th century.

Exs. *Pūliyū Koṅgiyū Kāliyammanū* 'Pūli, Koṅgi and Kāliamma'.

This *-ū* is probably from *-ūm* with the final nasal dropped. The suffix *-ūm* is replaced by *-um* in the inscriptions of the later centuries.

- Exs. 8th. *Singadattanum Kumāra Eḍegannum*
 'Singadatta and Kumāra Eḍega'.
 9th. *Keyyum nelanum* 'paddy field and ground'.
 10th. *balpum kūrpum āṛppum* 'strength, power and ability'.

This shows that *-ūm* might have been earlier than *-um*.

§ 25. *Word Order* : The general word order of the sentences in the inscriptions studied is subject-object-verb.

- Exs. 8th. *Sri Guppadaggadi Duggamāra idān paḍedār*.
 'Sri Guppadaggadi Duggamāra obtained this'.
 9th. *Elpuṇuseya nalvadiṁbar mahājanamum Mōnigoravarum . . .*
āru tōmṭada nelanum . . . sthānamuvam koṭṭar.
 'The forty mahājanas of Elpuṇuse and Mōnigoravar gave land of six gardens and place.'
 10th. 'Sānegāvunḍan gosahasram iḷḍan.
 'Sāntagāvunḍa bestowed (the gift of) thousand cows'.

'The forty mahājanas of Elpuṇuse and Mōnigoravar gave land of six gardens and place.'

There are some deviations from this general word-order which might have been possibly due to the importance or stress the speaker wanted to place on a particular idea or thing in the course of his speech.

Object-Subject-Verb :

- Exs. 8th. *pūruva mariyādegaḷān. Lōkamahā-dēviyar gāndharuvargge nittār*.
 'The queen bestowed the former honours on the singers'.
 9th. *i kallam Kanvillam māḍido* 'Kanvillam made this stone'.
 10th *Vyākarnam . . . tarkam samagragābhyaśisṣuvar*.
 'All study the grammar and logic'.

Subject-Verb-Object :

- 10th. *Nāgam baredon i śāsanamam* 'Nāgam wrote this order'.

Object-Verb-Subject :

- 8th. *Idān varedon Kumbakamlārar*.
 'Kumbakamlārar wrote this'.
 8th. *datti padedom Gōleyabhaṭṭam*.
 'Gōleyabhaṭṭam obtained the gift'.
 10th. *śāsanamam baredon Sēnabōvam Kācayyam*.
 'Sēnabōva Kācayya wrote the order'.

Subject in the singular and verb in the plural :

8th. *idan alivon paṁcamahāpātaka saṁyuktar appar.*

'He who destroys this will be guilty of the five great sins'.

§ 26. It is possible to make a generalization that there has been a continuous movement from *complex to simple structure*⁸⁹ in the evolution of the Kannaḍa language if the following assumptions, which have been discussed above, are tenable :

- (1) the disappearance of the pre-consonantal nasal.
- (2) the shortening of long consonants,
- (3) *-ār* (nom. pl. suffix) > *-ar*.
- (4) *-ōn*, *-ōm* (the gender-suffixes) > *-on*, *-om* respectively.
- (5) *-ān* (the acc. case-termination) > *-an*.
- (6) *-ā* (the gen. case termination) > *-a*.
- (7) *-āde* (the neg. adverbial suffix) > *-ade*.
- (8) *-ān*, *ām* (the personal terminations of the 3. per. masc. sing.) > *-an*, *-am* respectively, and
- (9) *-ūm* (the conjunctive suffix) > *-um*.

Further, from the study of the inscriptions of the 8th, 9th and 10th cent., it is possible to say that generally speaking the condition of the language in the 8th cent. is, more or less, the same as that to be found in the inscriptions of the 6th and 7th cent. whereas some changes begin to appear in the 9th cent. and when we come to the 10th cent. we see that certain changes are definitely established. In other words, it can be said that the 9th cent. forms as an intermediary stage between one phase of the language and the other.

LIST OF ABBREVIATIONS

Books & Periodicals :

- AA : American Anthropologist.
 ABORI : Annals of the Bhandarkar Oriental Research Institute.
 BDCRI : Bulletin of the Deccan College Research Institute.
 BSL : Bulletin de la Société de linguistique de Paris.
 BSOS : Bulletin of the School of Oriental Studies, London.
 CDG : A Comparative Grammar of the Dravidian or South Indian Family of Languages by R. CALDWELL.
 GOKI : A Grammar of the Oldest Kanarese Inscriptions by A. N. NARASIMHIA.
 IA : Indian Antiquary.
 JMU : Journal of the Madras University.
 JOR or JORM : Journal of Oriental Research, Madras.
 LSI : Linguistic Survey of India.
 MSL : Mémoires de la Société de linguistique de Paris.
 NIA : New Indian Antiquary.
 SMD : Śabdamaṇidarpaṇa by Kēśirāja (Kittel's revised edition, Mangalore).

Miscellaneous :

- IG : Indo-Germanic.
 N.K. : New Kannaḍa.
 PIE : Primitive Indo-European.
 Skt. : Sanskrit.

⁸⁹ There are two hypotheses regarding the development of the language ; according to the natural hypothesis, the PIE tongue was of a simple isolating structure, only superficially resembling the modern analytic type ; and some believe that there has been a continuous movement from complex to simple structure in the development of human speech.

See C. D. BUCK, *Comparative Grammar of Greek & Latin*, p. 65.

C. R. SANKARAN, *J.M.U.*, (1936), 8. 68-782; 9. 200.

Franz BOAS, *The Mind of the Primitive Man*, 1938, p. 172.

Franz BOAS, *Handbook of American Indian Languages*, Bull. 40. Bureau of American Ethnology, Washington, 1911.

HISTORICAL GRAMMAR OF INSCRIPTIONAL PRAKRITS*

By

M. A. MEHENDALE.

The importance of Inscriptional Prakrits, which form an important section in the MI-A field, to the study of Historical Linguistics can never be overrated. These inscriptions are geographically very widely scattered all over India and chronologically they range from about the middle of the third century B.C. to the end of the fourth century A.D. The present work is strictly limited to the study of Prakrit inscriptions that are found in Brāhmī alphabet in India. It, therefore, excludes the inscriptions in Kharoṣṭhī (except those of Aśoka), the legends on coins and the inscriptions in the Mixed dialect. For the purposes of regional study all these inscriptions have been divided into four major groups viz. the western (and north-western), the southern, the central and the eastern. In each group the inscriptions comprising that particular group have been arranged chronologically and studied in detail with regard to Phonology and Morphology. This study in regional linguistics in its time sequence will help in delineating the linguistic innovations introduced in a particular region at an earlier or later date. The next step then is to compare the results in one particular group with those in the others at a given point of time. For such comparison it has been found most convenient to give synoptic tables arranged in such a way as to give to the reader an idea of linguistic tendencies in various regions at a particular time. From the study of such synoptic tables it is possible in certain cases to fix approximately the movements of linguistic changes.

The study of Prakrit inscriptions, however, bristles with difficulties. To begin with we have not as yet before us the perfect transcriptions of these inscriptions which can be easily relied upon. The wide progress which the science of decipherment has made since the advent of the twentieth century is easily reflected in the scholarly works of Hultzsch, Barua and N. G. Majumdar. But in spite of this there yet remains a very large number of inscriptions which are either not read at all or read very badly. We have again to make sufficient allowance for the scribe's ignorance or negligence. The emperor Aśoka was himself quite aware of this drawback, for he has expressly put down the following in his fourteenth rock edict : "In some instances (some) of these (i.e. rescripts on morality) may have been written incompletely either on account of the locality, or because (my) motive was not liked, or by the fault of the writer (*lipikarāpatādhā*)."¹ Such mistakes are particularly likely to occur in putting down the length of vowels and the mark for *anusvāra*.

The distribution of these inscriptions in various geographical regions is again not proportionate for the collective material gathered in the different groups varies enormously. Their chronological distribution also in a given group is far from satisfactory. When we arrange these inscriptions according to their dates it is found that the material afforded by them in different centuries is awfully unequal. This puts a very serious hindrance in the way of historical study, for it is rather risky to compare the linguistic tendencies based on scanty material in a particular group at a particular period with those which are based on abundant material available in other groups.

Roughly speaking a century has elapsed since scholars undertook to decipher these inscriptions. But the efforts of almost all the scholars who followed in the wake of James PRINSEP were directed towards the decipherment and interpretation of these inscriptions. No attempt has been made so far to deal comprehensively at one stretch with the material

* An abstract of the thesis submitted to the University of Bombay for the degree of Ph. D.

¹ HULTZSCH'S translation.

afforded by these inscriptions for the study of MI-A languages. Even Pischel's monumental work *Grammatik der Prakrit Sprachen* omits these inscriptions with the exception of a few copper plate grants from the south. The present attempt is aimed at studying the whole material from a comparative standpoint of historical linguistics and thus it tries to make an advance over the previous piecemeal work done in this field. It not only consolidates the material made available by early scholars but also tries to fix up, though tentatively, the movements of linguistic changes. The following paragraphs give only a summary of important results arrived at by the detailed study of the Inscriptional Prakrits. It has not been found possible to give illustrations in an abstract like this.

PHONOLOGY.

1. Vowels : The Sk. vowels, with the noted exceptions of *ṛ* and the diphthongs *ai* and *au*, are usually preserved in the Inscriptional Prakrits. In the third cent. B.C. the vowel *ṛ* normally becomes *a*- in the initial syllable in the west and *i*- in the other regions. In the subsequent centuries, however, it tends to be *a*- in all regions. In the non-initial syllables it generally becomes *-a*- in all regions and at all times. The change of the vowel *ṛ* to *u* is found mostly in the nouns of relationship in all regions, but in the east and centre it also tends to be *i*.

The Sk. short vowels *a*, *i* and *u*, though mostly preserved, are sometimes lengthened to *ā*, *ī* and *ū* respectively in the metrically long syllables. It must be noted that on the whole this tendency is less evident in these inscriptions. The opposite process by which the long vowels are shortened before a consonant cluster is, however, more in evidence and especially so in the case of the vowel *ā*. Whereas the change *ā* > *a* is noted often in the west, the change *ī* > *i* is frequent in other regions. The long vowels are sometimes shortened even before the case terminations and at the end of the first member in a compound.

II. Simple Consonants : The simple consonants, with the exception of sibilants and the semivowel *r*, are almost rigorously preserved in their initial position. In their medial position they undergo a few changes which are not of universal application but only show their tendency in a particular direction.

The voicing of intervocal surds unaspirate is usually seen first in the non-western and non-southern regions. Thence the tendency has travelled in other directions in the later inscriptions. Examples showing the voicing of intervocal surds aspirate are not numerous and with the exception of *-th* > *-dh* they come forth only from later inscriptions. The change of *-th* to *-dh* is again a characteristic which appears only in the non-western regions.

The change of intervocal stops to *-y-* can be seen as early as in the third and the second cent. B.C. Even here the change is first instanced almost in all cases in the non-western regions. It is only in the case of *-d* > *-y-* that the tendency is first noticed in the west and then in the other groups.

The devoicing of intervocal sonants is a peculiar characteristic and it is worth while to note that its sphere of operation is mostly restricted to proper nouns. Though the devoicing has first appeared in a few instances in the east and north-west, it obtains a relative frequency in the south at a later date.

The semivowel *-y-* is changed to *-j-* first in the east and north and thence it travels to the west and south. In the initial position, however, the change is first effected in the south though as late as the second cent. A.D.

The semivowel *r* is changed to *l* in all regions except the west and north-west (and sometimes also in the south) in the inscriptions of Aśoka. But for a few exceptional instances in the east, later on this regional distinction is lost in favour of *r*.

The three Sk. sibilants are almost invariably merged into the single dental sibilant in all places. It is only the north-western inscriptions of Aśoka which preserve the distinction between the three sibilants. The presence of *ś* and *ṣ* in the Kāśī edicts of Aśoka in the north and in the Bhāṭṭiprolu casket inscriptions in the south is attributed by scholars, not

as much to the knowledge of the distinction between the three sibilants on the part of the speakers of the dialect, as to the ignorance of the scribe. The palatal *ś* is found only in a few inscriptions in the east in later period.

The loss of intervocal consonants is in almost all cases first met with in the western inscriptions. It has only slightly affected the inscriptions of Central and Southern India later on.

Palatalisation : The clusters *ty*, *ts*, *dy* and *dhy* are usually palatalised to *c*, *ch*, *j* and *jh* respectively. (The single consonants stand for the double ones in the middle of the word). The guttural *k* is palatalical in the east and centre even in the third cent. B.C. As regards the treatment of the cluster *ks* the inscriptions of Aśoka divide themselves into two groups—those in the west and north-west show the palatal *ch* (*cch*) and the rest *kh* (*kkh*). Later on this distinction is not evident as *kh* and *ch* appear in all regions. The cluster *ry* is palatalised to *j* (*jj*) only in the south and centre.

Cerebralisation : The dentals are cerebralised under the influence of *ṛ* or *r* in the inscriptions of Aśoka, except those in the west (only *rdh* is cerebralised so early as that in the west). This influence is observed in the west mostly from the beginning of the Christian era. The dentals *t* and *th* in combination with *s* are, however, cerebralised at all places since the earliest times. The dental nasal *n* is cerebralised initially only in rare cases. In the medial position it tends to be cerebralised more and more from the days of Aśoka. The wholesale change of *n* > *ṇ* is observed only in the fourth cent. A.D. copperplates of central India. It may be noted here that the cerebral *ṇ* is usually changed to *n* in the non-western inscriptions of Aśoka. Later on, however, *n* is preserved even in these regions.

III. Consonant Clusters : The consonant clusters are usually assimilated to the stronger of the two consonants coming together. Some of them are also dissolved by *svabhakti* and others which are formed with *r* and *s* are sometimes preserved. Such clusters where *r* or *s* precedes the dental they are preserved mostly in the west and north-west in the inscriptions of Aśoka. Later on they are assimilated to the dental even in the west as in other regions.

Where a consonant precedes *r*, such clusters as *kr*, *gr*, *tr*, *dr*, *pr*, *vr* and sibilant + *r* are sometimes preserved in the western and north-western inscriptions of Aśoka. This tendency to preserve such clusters with *r* is exemplified, though in fewer instances, even in the later inscriptions of the western group. It is worth noting that similar instances are sometimes met with even in Central India usually from the second or the first cent. B.C.

Similarly the clusters with *v* and with sibilants are sometimes preserved in the western and north-western inscriptions of Aśoka. The cluster *-sv-* is medially preserved even in other regions in the days of Aśoka. But for a few instances of preservation all these clusters are normally assimilated in later centuries at all places.

Among the clusters with nasals *jñ*, *ṇy* and *ny* are assimilated usually to the palatal nasal *ñ* in the western and north-western (also sometimes in the southern) inscriptions of Aśoka but to the nasal *n* elsewhere. In later centuries the western and the non-western regions show mutual influence. The tendency in favour of the dental *n* in the non-western regions is noticed even in the assimilation of the cluster *ṇṇ*. The preservation of the cerebral *ṇ* in the assimilation of *ṇy* is a characteristic peculiar to the two distant corners viz. the north-west and south in the inscriptions of Aśoka. Later on it is found even in the west. Similarly the cerebralisation of the cluster *jñ* to *ñ* (*ṇṇ*-) is found in the north-west and south in the third cent. B.C. In later centuries the tendency shows its influence in other regions also.

MORPHOLOGY.

I. Declension : The declensional system of the inscriptional Prakrits, as of the Prakrits in general, is much simplified through the processes too well-known to require a detailed description here. Thus, for example, the dual number is altogether lost and the bases originally ending in consonants are mostly transferred to the *-a* stem. In many instances, however, the declined forms of these bases originally ending in consonants are directly derived from the corresponding Sk. forms with the necessary phonetic changes.

The regional differences in the terminations which can be discerned in the inscriptions of Aśoka are mostly obliterated in the following centuries so that almost in all cases the western influence over other regions is vividly borne out. Thus the nom. sg. term. of the mas. nouns ending in *-a* is *-o* in the western and *-e* in the non-western inscriptions of Aśoka. But in later inscriptions only the term. *-o* is found in all regions. Similarly the loc. sg. term. is *-e* or *-mhi* in the west and *-si* in other regions in the earliest Prakrit inscriptions. But later on, inscriptions from all over India normally show the term. *-e*.

In the instr. and gen. sg. and the gen. pl. term. the nasal *n* is sometimes cerebralised, generally where Sk. requires it and sometimes even where the Sk. usage does not warrant it. In a majority of cases the cerebralisation is first noticed in the west and south mostly round about the beginning of the Christian era. It is noticed in the centre in very late inscriptions but is altogether absent in the east.

II. Pronouns: There is not much to say about the movements of linguistic peculiarities so far as the pronouns are concerned. Some of the peculiar forms may, however, be noted here. Almost all the plural forms of the first personal pronoun are derived from the base *amha-*. But the nom. pl. form *maye* found in the second separate edict of Aśoka at Dhauli and Jaugaḍa is quite peculiar.*

The forms of the second personal pron. are derived from the base *tuphaka-* or from the corresponding Sk. forms. The examples are quite few.

The bases for the third personal pron. are the normal ones viz. *ta-* and *sa-*. Some of the gen. pl. forms of mas. are obtained by the analogous application of the term. *-nam*. Other peculiar forms are *se* (or *sa*) and *tissa* for the gen. sg. mas. The use of the nom. sg. mas. forms as neut. is not noticed beyond the inscriptions of Aśoka.

The forms of the demonstrative *etad-* are similarly derived from *et-* or *esa-*. The peculiarities are the gen. sg. *etisa* or *etesa*, the loc. sg. *etesi*, the use of *ete* in nom. pl. neut. and the gen. pl. forms with the term. *-nam* (or *-ṇa*).

The pronoun *idam* is not so simple. First of all the form *iyam* is used in the sg. of all the three genders. The base *ima-* is found even in the nom. sg. mas. and neut. and in the forms of instr., gen. and loc. Still more interesting is the form *iṇa* as nom. sg. neut. which is found in a Nāsik cave inscription (Lüders' List No. 1147).

The normal base for the relative pron. is *ya-*. It also gives the base *a-* with the occasional loss of initial occlusion and *ja-* with the change of *y-* > *j-*. Even here the nom. sg. mas. forms are used for the neut. in the earliest inscriptions. The loss of initial occlusion is an eastern peculiarity almost confined to the inscriptions of Aśoka.

III. Verb forms: In general the observations which are usually made in this connection with regard to the Prakrits of the grammarians apply to the Inscriptional Prakrits as well. The number of verb forms that we come across in these inscriptions is very small. Of the ten classes of verbs found in the old system normally we meet with only two classes. The *-a* class includes a large number of them. The second is *-e*: *-aya* class which includes some simple verbs and the causatives.

There is nothing quite peculiar about the terminations. The change *-th-* > *-dh-* in the imperative second per. pl. term. is met with only in the fourth cent. A.D. inscriptions of Central India. The term. *-ru* for the imperative third per. pl. found in the Girnar edict of Aśoka is also noteworthy.

The term. of the potential show a large variety, most of them being of the type *-yā* or *-eyā*. Sometimes we also get *vā* (in the sg.) and *-evā* (in the pl.) in the Aś. inscriptions. The use of *-ti* in the third pers. sg. in this mood is peculiar to the north-western and northern inscriptions of Aśoka. It is not met with in later inscriptions. These later inscriptions on the other hand change *-yy-* of the term. to *-jj-*.

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As the middle voice is dropped in the Prakrits, most of the pres. part. are of the active type ending in *-ata* or *-amita*. Wherever we get the middle participles they are formed with *-māna* or *-mīna*. As regards the past pass. and pot. pass. part. there is nothing which is very particular to note.

The normal term. for absolutes are *-tā* and *-ya*. Only the Girnar edicts give the term. *-tā* (< *-tvā*). The later inscriptions from the south show the term. *-tāna(m)* or *-tūṇa(m)* which in the earlier centuries is found in the Calcutta-Bairāt rock inscr. of Aśoka. The fourth cent. A.D. copper plates of Central India, however, give only *-tā*.

The forms of infinitive are rarely met with outside the inscriptions of Aśoka. The term. are *-tu* or *-tave* in the west and only *-tave* in other regions. The eastern forms of 2nd cen. B.C. however, show *-tum*.

With this picture of the peculiarities of Inscriptional Prakrits in mind it would be better to look at them in the light of Prakrit grammarians. The grammars of Prakrit languages were written at a very late stage when the different languages described in them had already assumed a literary form, were more or less standardised by usage, and were, therefore, no longer in the process of formation. The Prakrit inscriptions, on the other hand, were written centuries before the school of Prakrit grammarians came into vogue and we may assume, *prima facie*, that they reflect the gradual process by which most of the characteristics noted by later grammarians came into play. Though the Prakrit grammars enumerate a large number of Prakrits there are only three or four principal Prakrits which can be well distinguished from one another. Leaving aside the question of Pāṣāṇī, the problem of the original home of which is not yet definitely solved, Māhārāṣṭrī may roughly correspond, geographically speaking, to the group of western inscriptions, Saurasēnī to the central and Māgadhī to the eastern. If we compare the principal characteristics of these later literary Prakrits with those of the corresponding group of inscriptions it will throw some light on some of the linguistic variations noted by the grammarians.

PHONOLOGY.

I. Vowels : The treatment of the vowel *ṛ* is not so specifically dealt with by grammarians so as to point to any dialectic distinction in it. Yet such a distinction has been made by some of the modern scholars who point out that the *a* (< *ṛ*) treatment is predominant in the west and south and the *i* (< *ṛ*) treatment in other regions. In the study of Prakrit inscriptions we find that the *a* treatment is the principal one in the western and the *i* treatment in the non-western inscriptions of Aśoka. Later inscriptions from all parts, however, tend to show the *a* treatment.

As regards the change in the quantity of the vowels before consonant clusters though Hemacandra (H) expresses himself in a definite manner in the sūtras 1.43, 84 and 2.92, Vararuci (V) is astonishingly silent about it. "Are we therefore to interpret" asks Cowell in his edition of the *Prākṛtaprakāśa* (p. 186, second issue) "the silence of Vararuci as evidence that the principle in question grew up gradually in Prakrit, and only became fully recognised in later times?" Colour is definitely lent to this statement by the study of inscriptional Prakrits. Hemacandra makes only a qualified statement in laying down that short vowels are lengthened before consonant clusters (1. 43, 2. 92). But according to him the change of long vowels to short ones in similar circumstances is of a sweeping nature (1. 84). Now the presence of many long vowels before assimilated conjuncts in Prakrit inscriptions clearly points to the fact that this tendency had the widest application only in later days. Even here the dialectic distinction is not made by the grammarians and it is not so clearly evident in the inscriptions either.

II. Consonants : It is mostly in this sphere that the dialectic variations have been recognised by the grammarians. The elision of single intervocal consonants is a singular characteristic of Māhārāṣṭrī (V. 2. 2 ; H. 1. 177). Now in the inscriptional Prakrits such elision is first met with in some examples of the western group and thus the elements of a tendency later on perhaps exaggerated in Māhārāṣṭrī are found in the corresponding region. The change of *t > d* and *th > dh* is one of the salient features of Saurasēnī (V. 12. 3 ; H. 4.

260-2 and 267) and Māgadhi (H. on 4. 302). In the Prakrit inscriptions though the change of *-t- > -d-* is noticed even in the west³ together with other regions, the voicing of *-th- > -dh-* is altogether absent in the west. Its presence in other regions seems to have developed later on in the Sauraseni and Māgadhi characteristic.

In the treatment of the palatal *j* and the semivowel *y* it may be noted that the later usage does not quite correspond to the earlier tendencies. The grammarians prescribe that intervocal *-j-* is dropped and sometimes *-y-* is developed in its stead in Māhārāṣṭri (H. 1. 177, 180), but it is invariably changed to *-y-*, both initially and medially, in Māgadhi (V. 11. 4 ; H. 4. 292). Among the inscriptions, the western and the central groups also show the change *-j- > -y-*. In the east, on the contrary, *-j-* is preserved in all inscriptions. With regard to *y*, however, it is laid down that whereas it is preserved in Māgadhi (H. 4. 292), it is changed to *j-* or *-j-* in other languages (V. 2. 31 ; H. 1. 248). Now in the inscriptions we do notice its preservation in the east and its change to *j* in other regions.

The cerebral *ṇ* is preserved in all Prakrits except Paisāci where it is changed to *n* (V. 10. 5 ; H. 4. 306). The Aśokan inscriptions too divide themselves into two parts in this respect—those in the west, n-west and south show *-ṇ-* and the rest *-n-*. Later on, however, many inscriptions from the west show *-n-* and those in the centre and east show *-ṇ-*. The tendency to preserve *-ṇ-* in all cases is seen in the very late inscriptions e.g. in the fourth cent. A.D. copperplates of Central India.

The change of *r > l* in all positions forms one of the salient features of Māgadhi according to the grammarians (H. 4. 288). This change is optional in Sauraseni, more frequent in Ardhamāgadhi and a few instances have been pointed out where it occurs even in Māhārāṣṭri (V. 2. 30). This account of the semivowel *r* is definitely borne out by the inscriptions of Aśoka which point out that *l* was substituted for *r* in the court language of Magadha but not in the west and north-west. Later inscriptions from the east and especially those of *Khāravela*, however, point to *r* and not to *l*. Only the Piprahwa vase inscription and the Soghaura copperplates, which are perhaps earlier than the inscriptions of Aśoka, and the Jogimāra cave inscriptions from the east show *r > l*.

The three Sk. sibilants are merged into the single dental *s* in all Prakrits except Māgadhi (V. 2. 43 ; H. 1. 260). The Māgadhi of the grammarians shows, on the contrary, the palatal *ś* (V. 11. 3 ; H. 4. 288). In this respect the eastern language of the inscriptions does not agree with the statement of the grammarians. Not only the inscriptions from non-western group (except north-west) but even the eastern inscriptions of Aśoka possess the dental *s* and not *ś*. The notable exception is formulated by the later Jogimāra cave inscription in the east, which not only preserves *ś* but also changes *s > ś* as is laid down by the grammarians. This inscription, therefore, definitely points to the existence of an eastern dialect with a palatal *ś* which was current in an area adjacent to Magadha.

Palatalisation of a few single consonants and mostly of dentals in combination with *y* is a feature common to both the literary and the inscriptional Prakrits. A few peculiarities may however be pointed out. It has been already noted that Māgadhi changes *j* to *y* and as a corollary to it the cluster *dy* is changed not to *jj* but to *yy* in Māgadhi (H. 4. 292). The eastern inscriptions, however, have nothing in common with Māgadhi in this respect as they preserve *j* and palatalise *dy* to *j* (*jj*). The treatment of the cluster *ry* is varied but here we are concerned with the one wherein *ry > j* or *jj*. According to the grammarians Māhārāṣṭri and Sauraseni are to have this palatal treatment (H. 2. 24 ; 4. 266) but the treatment *ry > yy* is fixed for Māgadhi (V. 11. 7 ; H. 4. 302) and said to be optional in Sauraseni (H. 4. 266). Now palatalisation of *ry* is no doubt observed in very late inscriptions but it does not show any regional distinction.

The cerebralisation of dentals under the influence of *r*, *ṛ*, or a sibilant is noticed by the grammarians as a common feature in all Prakrits without any dialectic distinction. It is also noticed in the inscriptional Prakrits of all regions with this difference that in certain regions it appears at an earlier or later date. The cerebralisation of *n* to *ṇ* in all positions

³ For the change of *t > d* even in Māhārāṣṭri cf. A. M. GHATAGE, 'Māhārāṣṭri language and literature,' *Journ. University of Bombay*, 4.11.

is, however, a later development of the literary Prakrits not noticed so strongly in the inscriptions. Though Hemacandra allows option for the change of $n > \eta$ in the initial position (H. 1. 228-9), Vararuci makes it obligatory in all positions (V. 2. 52). Coming to the inscriptional Prakrits it is noticed that n is preserved in all inscriptions of Aśoka except at Kopbāl in H. E. H. the Nizam's Dominions. The later inscriptions from the second cen. B.C. generally show both n and η . It is only in such late inscriptions as that of the third and the fourth cen. A.D. that a sweeping change of n to η is noticed. Even in terminations we find both n and η in the inscriptions upto the second cen. A.D. The stage reflected in the literary Prakrits which know of only η in term. is reached perhaps in the third or the fourth cen. A.D. inscriptions.

In the treatment of the cluster $-jñ-$ the literary Prakrits make a difference. It is cerebralised to $-ṇ-$ in Māhārāṣṭrī and Saurasenī (V. 3. 44, 12. 8; H. 2. 42), but palatalised to $-ñ-$ in Māgadhi (H. 4. 293) and Paisāci (H. 4. 303-4). Now the palatal treatment is not noticed anywhere except in the western (and sometimes the north-western) inscriptions of Aśoka. The central, eastern and the northern inscriptions of Aśoka point to $-m-$. The north-western and the southern inscriptions of Aśoka, however, show $-ṇ-$ ($-ṇ-$) which later on prevails over all the regions. Thus the Māhārāṣṭrī and Saurasenī characteristic is no doubt reflected at a later date in the corresponding group of inscriptions. In the absence of suitable instances we can not say when the palatal treatment which formed the western characteristic in the days of Aśoka came to the east so as to become a Māgadhi feature later on.

The change of intervocal sonants to surds forms the salient characteristic of Paisāci (and Cūlikā Paisāci) Prakrit (V. 10. 3; H. 4. 307, 325). This tendency is only sporadically met with in the inscriptional Prakrits of almost all regions. It is important to note that in many cases (eg. $-g- > -k-$, $-gh- > -kh-$, $-j- > -c-$, $-d- > -t-$) the starting point seems to be situated in the east. Its appearance in other regions simultaneously with the east in some cases in the inscriptions of Aśoka may be due to the eastern influence. Later inscriptions from the south point to some slightly frequent instances of this change, though mostly in proper names.

III. Consonant Clusters: The principle of assimilation which is mostly responsible for the simplification of Sk. clusters is common to both literary as well as inscriptional Prakrits. A few peculiarities, however, may be discussed here.

(i) Clusters with stops: The change $-cch- > -śc-$ noticed in Māgadhi (H. 4. 295) is not to be met with anywhere in the inscriptions. The clusters with sibilant + stops are sometimes preserved in Māgadhi. Thus $(-tṭ- \text{ and } -ṣṭh- > -ṣṭ- \text{ and } -ṣṭh- \text{ (and } -ṛṭh-) > -ṣṭ-$ (H. 4. 290-1).⁴ Now the clusters $-tṭ-$ and $-ṣṭh-$ always becomes $-ṭ-$ ($-tṭ-$) and $-ṭh-$ or $-tḥ-$ ($-tṭh-$ or $-tḥ-$) in Prakrit inscriptions. The cluster $-ṣṭh-$ either becomes $-ṭh-$ ($-tṭh-$) or $-tḥ-$ ($-tṭh-$). The clusters $-ṣṭ-$ and $-ṣṭ-$ appear only in the earliest inscriptions in the Girnar edicts of Aśoka.

(ii) Clusters with the semivowel y : Some of the peculiarities have been already noticed above while discussing palatalisation. The cluster $-ry-$ presents a number of treatments in inscriptions. It is mostly dissolved by anaptyxis into $-riy-$ or assimilated to $-y-$ ($-yy-$). Some of the later inscriptions also show the loss of $-y-$ in $-riy-$ or its change to $-j-$. Thus we get $-ry- > -riy- > -ria-$ (and sometimes by metathesis $-ira-$) or $-rij-$. In a few cases we also get the change $-ry- > -r-$. Now almost all these treatments have been noticed by later grammarians (cf. $-ry- > -ria-$ V. 3. 20; H. 2. 107 also 67; $-ry- > -r-$ V. 3. 18.9; H. 2. 63-4; $-ry- > -ara-$ and $-rij-$ H. 2. 67). What is noteworthy is that the treatment $-ry- > -riy-$ is not noticed by grammarians. They have, on the contrary, added one more highly advanced treatment, that of $-ry- > -(e)ra-$, which is not exemplified in the inscriptions.

(iii) Clusters with the semivowel r : It is enjoined by the grammarians that the clusters with r are to be assimilated. They, however, notice the optional preservation of r in dr (V. 3. 3-4; H. 2. 79-80). It has been already pointed out that the clusters with r

⁴ The preservation of many other clusters is noticed in Māgadhi cf. H. 4.289. It is not to be found in Prakrit inscriptions.

are often preserved in the western and north-western inscriptions of Aśoka. Later on this tendency is not so strongly evident in the inscriptions, yet stray cases of preservation of such clusters as *-kr-*, *-gr-*, *tr-*, *-tr-*, *-r*, *pr-*, *-pr-*, *br-*, and sibilant + *r* are definitely found. Thus it appears that by the time the literary Prakrits were formulated even this stray preservation tended to disappear except in the case of *-dr-*.

(iv) Clusters with the semivowel *v* : A dialectic variation in the treatment of the cluster *rv* is noticed by Hemacandra. It is assimilated to *-vv-* in other Prakrits, but it is also sometimes dissolved into *-rav-* (or *-lav-*) in Sauraseni and Māgadhi (H. 4. 270 and on 4. 302). The inscriptions following those of Aśoka show at all places the change *-rv-* > *-vv-*. In the inscriptions of Aśoka the cluster is either preserved or assimilated in the west and north-west. In the east and north it is either assimilated or dissolved into *-luv-*. The Sauraseni and Māgadhi feature, therefore, seems to be an eastern archaism not recorded in later Prakrit inscriptions.

(V) Clusters with nasals :

(a) clusters with the nasal *ñ* : The treatment of the cluster *jñ* > *ṇṇ* or *ññ* is already discussed above. A curious treatment by which this cluster is sometimes changed to *j-* or *-jj-* in literary Prakrits (V. 3. 5 ; H. 2. 83) is not found in the inscriptions. The cluster *-ñj-* is assimilated to *-ññ-* according to Hemacandra in Māgadhi (cf. 4. 293). In the inscriptions the cluster is always represented as *-ñj-* or *-j-*. It is only in a few instances from the north-western inscriptions of Aśoka that it is assimilated, as in Māgadhi, to *-ñ-* (*-ññ-*).

(b) Clusters with the nasals *ṇ* and *n* : The clusters *ṇy* and *ny* are always assimilated to *ññ* in Māgadhi and Pāṣāṇi according to Hemacandra (4. 293 and 305). It is changed to *-ṇṇ-* in other Prakrits. Now this treatment *-ññ-* is never noticed in the eastern inscriptions. It is first noticed in the west and south and then in the centre. On the contrary it is assimilated to *n* (*nn*) or dissolved into *nīy* in the eastern inscriptions.

(V) Clusters with the nasal *m* : The cluster *-lm-* is mostly changed to *-pp-* in Māhārāṣṭri and to *-pp-* or *-tt-* in other Prakrits (V. 3. 48 ; H. 2. 51 seems to allow both forms in Māhārāṣṭri). In Aśokan inscriptions the cluster is preserved as *-tp-* in the western and southern groups but assimilated to *-t-* (*-tt-*) in other regions. This change of *-lm-* > *-tp-* in the west seems to have developed into *-pp-* in Māhārāṣṭri (and other Prakrits).

MORPHOLOGY.

The dialectic variations in the declensional and the conjugational systems of the inscriptional and literary Prakrits are not many. The nom. sg. term. *-e* in Māgadhi (V. H. 10 ; H. 4. 287) for the stems in *a* is definitely reflected in the eastern language of the inscriptions of Aśoka. Most of the eastern inscriptions of later period, except a few like those at Jogimārā and Pāṭṇā, show the western term. *-o* instead of *-e*. It is really unfortunate that inscriptions following the beginning of the Christian era are not available from eastern India, for this prevents us from determining the approximate date when the dialect of the Jogimārā cave inscription came to be recognised and fully developed into literary Māgadhi.

The nom. sg. neut. term. *-e* found in the eastern dialect of Aśokan inscriptions is not found later on either in the inscriptional or literary Prakrits. The term. *-am* is used regularly for this purpose.

The optional term. *-āha* for gen. sg. and *-ham* for gen. pl. in Māgadhi (V. 11. 12 ; H. 4. 297, 300) are never witnessed in any of the Prakrit inscriptions.

The instr., dat., abl. and gen. sg. of the fem. nouns always show *-y-* in the terminations *-yā* or *-ye* in the inscriptional stage. It is only in a few instances of a later date that this *-y-* is lost. The literary Prakrits, on the other hand, never preserve this *-y-* in term.

The nom. sg. of stems in *-i* and *-u* and in *ī* and *ū* in the inscriptional Prakrits. The literary Prakrits always show *-i* or *-ū*.

Of the stems ending in *-ṛ* a noteworthy feature of inscriptions which never figures in the literary Prakrits is the gen. sg. ending *-u* coming directly from Sk. *-uḥ* in such forms as *pītuḥ* or *mātuḥ*.

In the declension of the consonantal stems the inscriptions keep up many Sk. forms with the necessary phonetic changes. In the literary Prakrits, but for a few exceptions, almost all of them are declined like the corresponding stems in vowels. Thus for example, the instr. and gen. sg. forms of *-at* stems in inscriptions end in *-ā* and *-o* (besides *-sa* i.e. *-ssa*) respectively, instead of ending in *-eṇa* and *-ssa* as in literary Prakrits.

In the pronominal declension, too, there is not much to be compared. The peculiar form *hage* used in Māgadhi for the nom. pl. of the first personal pronoun is not noticed in the inscriptions. On the other hand such inscriptional bases as *aphāka-* and *tuphāka-* are not found in the literary Prakrits. The nom. sg. of the third personal pron. appears in Māgadhi as *še* but as *se* in the eastern language of the Aś. inscriptions. (The Kalsi edict gives all the three forms *se*, *še* and *še*).

Conjugation : The change of *-t-* > *-d-* in third pers. sg. term. is noticed in Sauraseni and Māgadhi (H. 4. 273-4 ; H. on 4. 302). This *-t-* being lost in Māhārāṣṭrī we get there such term. as *-i*, *-u* etc. These are all later phonetic developments almost altogether absent in the inscriptions. It is only in the 4th cent. A.D. copperplates of Central India that intervocal *-th-* of the imperative second per. pl. term. is voiced to *-dh-* as is done in Sauraseni and Māgadhi.

The term. of absolutives are rather confused in the literary Prakrits. The term. *-tāna(m)* and *-tāna(m)* which are so common in the later inscriptions from south India figure in all literary Prakrits with the usual change of *-t-* > *-d-* in Sauraseni and Māgadhi (H. 4. 271 and H. on 4. 302). The term. *-ttā* which is noted by Hemacandra in his commentary on the sūtra 2. 271 in the treatment of Sauraseni language is noticed in the corresponding group of inscriptions in the fourth cent. A.D.

It will be thus apparent that in some respects the distinguishing characteristics of the later literary Prakrits are based on the partial innovations introduced in the earlier inscriptional Prakrits. The above comparison also brings out the fact that in the development of the Middle Indo-Aryan languages the literary Prakrits mark a definitely later stage than the one reached in the inscriptional Prakrits.

REVIEWS :

Jaina Pustaka Praśasti Saṅgraha, Part I. Edited by Śrī JINA VIJAYA MUNI, Director, Bharatiya Vidya Bhavan. Published by the same Institute, Bombay V. E. 1999, Singhi Jaina Granthamālā (No. 18). 11" × 9", pp. 1-180.

In this work Śrī JINA VIJAYA MUNI has edited three types of Praśastis (epitaphs). The first type consists mostly of a large number of verses written after the completion of a Jaina work (*pustaka*), either new or a copy of the old. There are 109 of these, ranging from v.s. 1138 (A.D. 1062-1) to v.s. 1492 (A.D. 1435-6), both the first and the last (No. 77 in the list) being *praśasti* on commentaries of the *Āvaśyakasūtra*. Some are undated, but palaeographically fall within this period.

The second type of *praśastis*, No. 110-11 are written principally in prose. Both are of the 13th century.

To the third type belong very short epitaphs, 433 in all, called *Samkṣipta-puṣṭikā-lekhāḥ*. These are called from palmleaf mss. The earliest of these and the earliest in the entire collection is dated v.s. 1109 (A.D. 1052-3), being a copy of the *Bhagavatisūtra*, the latest is dated v.s. 1635 (A.D. 1572-3).

What is a *praśasti*? Ordinarily it means a panegyric, any laudatory account of an individual ; while this definition would apply to many early and late inscriptions, such as the Gīrnar Inscription of Rudradāma (c. 150 A.D.) or the Vadnagar Praśasti of Kumārāpāla (c. 1150 A.D.), the *praśastis* found in Jaina works are of a slightly different nature, as explained by JINA VIJAYAJI. We have a class, forming the end of a work, which are composed by the authors themselves. These give the spiritual genealogy of the writer,

mentioning at times some details about the ruler. MUNIJI would like to call these "*Pustaka-Praśasti-Saṅgraha*."

To the second class belong the specimens of *praśasti* published by MUNIJI in the present collection. From the point of view of general cultural history these are more important. For besides mentioning the various literary works, old and new, these mention, (1) the name and at times a family of the writer or copyist, (2) the name of the person or persons for whose benefit, the work was got copied, (3) the name of the Jaina acharya, (4) the king in whose reign their work was copied and finally the place or places connected with the writer, his patron, and others. In short these *praśastis* provide the type of information which the Caulukya inscriptions do; and hence should be welcome as additional historical sources of the Caulukya period.

One of the uses to which these *praśastis* could be put is to reconstruct the historical geography and ethnography of Caulukya Gujarat-Rajputana. This has been suggested by Muniiji who has already analysed the material under 10 appendices and the writer has worked it out from the inscriptional evidence.

Among place-names we have Daṇḍavyapathaka, the same as the Daṇḍāhipathaka of inscriptions, the old name of the territorial unit covering parts of the present Sidhpur, Visanagar, Mehsana and Kheralu mahals, whereas Vijāpura or Vidyāpura seems to be the same as modern Vijapur, the chief town of the taluka of that name in Mehsana Prant, Baroda State. If this is proved, then we can say that this town is of the Caulukya period; otherwise there is no inscriptional evidence of its antiquity.

Regarding the names of people and their subcastes, mostly regional, the *praśastis* mention the same types of names, such as Pethaḍa, Buṭadi, Bhumaḍa, Khimaḍa, Gaṅgā, Gogila, Meliga, Rāṇiga, Dhūlaga, besides a few sanskrit and sanskritized names. Many of these names in *-ḍa*, *-ḍi*, *-ga*, *-la*, which cannot be properly related with Prakrit or Sanskrit seem to be from śaka names, indicating that their bearers were either actually or culturally connected with the Central Asian people.

The same is true of the subcastes, such as Ulsa- or Ośavāla, Pallivāla, Poḍavāla, Prāgvāṭa; the *Praśastis* give a list longer than that gathered by the writer from inscriptions and hence the information is welcome indeed, but cannot be said, as asserted by Muni Jinavijayaji (Prāstāvika Vicāra, p. 19) that these were Vaiśyas. Very rarely their Varṇa is mentioned. Originally many of these people were foreigners, Gurjjaras, Śakas etc. who embraced Hinduism as the earlier Śakas and Yavanas of the 1st century B.C.—A.D.¹ Later when these converted Jains and Hindus took to trade and business, and never resorted to warfare as non-violent Jains, they came to be regarded as Vaiśyas, though Jainism never required them to do so. Later some of these Jaina-Vaiśyas became Vaiṣṇavas. This is in brief the evolution of the Jaina-Vaiṣṇavas of Gujarat during the last 1,000 years.

The *Jaina-pustaka-saṅgraha* throws light on several aspects of Calukya Gujarat. It is to be hoped that Muni Jina Vijayaji and the Bharatiya Vidya Bhavan will soon publish the remaining parts of this collection in the same scholarly, at the same time handsome manner as the present one.

H. D. SANKALIA.

Sanskrit Dvyaśraya Kāvyaṃ Madhyakālīn Gujarātīn Sāmājīk Sthiti: (Social Condition of Mediaeval Gujarat as depicted in the Sanskrit portions of *Dvyaśraya*). By Ramlal Chunilal MODI, Published by the Gujarat Vernacular Society, Ahmedabad, pp. 1-7 + pp. 1-94 with Index, 8½" × 5½".

Gujarat has exceptionally rich literature dating from the 11th century onwards. Unfortunately much of this is still in unpublished manuscript form. Of what is published Hemacandra's *Dvyaśraya* holds a pre-eminent place. This has been used in the past by scholars including the reviewer, in understanding Gujarat's political and social position in the early

¹ Cf. also MUNSHI, *The Glory that was Gūrjaradeśa*, Part III, p. 16.

mediaeval India. Mr. MODY's, however, is the first attempt where this source has been critically, though perhaps not exhaustively, as the author himself says in the preface, explored to throw light on the social conditions incidentally referred to therein. But to have a more detailed picture of the times it will be necessary, as the reviewer has pointed out, and which has also been stressed by Mr. MODY, to study on similar lines other contemporary and later published and unpublished works. A little consideration of the topics discussed by Mr. MODY will make this remark clear.

In chapter I, is gathered all the information about the capital Anahilapura and its inhabitants. But the information, as Mr. MODY has said, is not much; it says nothing about the various castes and subcastes; whereas its description of the city is vague, conventional and lacks credence.

Food and clothes are discussed in the next chapter. Here, the omission of wheat from among the main crops of the country (Gujarat) by Hemacandra is surprising. Fortunately we are assured by another source that wheat did grow in Gujarat. Regarding dress of men and women a few details are available. But the *Adhovastra* and *Uttariya*, meaning under and upper garments, are merely conventional or traditional terms. The former certainly does not stand for the skirt or petticoat. For if archæological, sculptural evidence, particularly the sculptures of wives of Tejahpāla and his brother in the temples at Mt. Abu is to be believed then the skirt was unknown, probably all over India as late as the 13th century. Its actual time of introduction in Indian woman's dress is still undecided. In Bengal even now it is not so common as it is in Gujarat, though the method of wearing the Sāri is not Deccani or South Indian but almost similar to that in Gujarat. That men kept a beard and a moustache is attested by figures of men at Mt. Abu.

A few details are available regarding marriage ceremonies (chapter III), but more about Simanta.

Among festivals and amusements the observance of the New Year and Dola festivals. is interesting. How modern Gujarat has changed in its method of celebrating these occasions owing to the cult of Krishna and the Maharashtra contact was previously pointed out by the reviewer.

Whether the use of wine and gambling by women was common or its reference is merely conventional cannot be ascertained.

Of doubtful value are also the references to painting and other arts, which are discussed in Chapter VI, but some of the other references to the prevalence of a Yavanalipi etc. are interesting.

Chapter VII deals with Agriculture and Commerce. It is unfortunate that there are no means to test whether the weights, measures and coins mentioned in the *Dvyāśraya* were the same as in other parts of India, for let alone weight, we have hardly any coins of the Caulukyas. The description of the Constitution of the army is on conventional lines but welcome is the list of arms and weapons, among which is mentioned Sataghni. It is supposed to be a catapult on the explanation given by Mallinātha in his commentary on the *Raghu-vaṃśa*. There is no reference to the existence of cannon.

Chapters IX and X deal respectively with a few points about the royal family and some geographical places.

The six appendices give the proper names, and discuss briefly questions relating to Hemacandra and *Dvyāśraya*, the river Jambumālī, officers of the Caulakya empire, the starting of the era, and Kumārapāla's conversion to Jainism.

Mr. Mody's attempt, though not exhaustive, is critical and well thought out, and will be useful to Gujarati scholars.

H. D. SANKALIA.

Gujarāṭī Aṭakono Itihās (History of Gujarāṭī Surnames). By Prof. Vinodini NILAKANTHA. Published by Gujarat Vernacular Society, Ahmedabad, Price Rs. 1-4-0. pp. 1-153 with Index, 8½" × 5½".

Surname-study is a fascinating subject. It is one of the ways by which strata in a country's culture—the various impacts, political, social, religious, even economic which it has received—at different periods in its history, can be faintly discerned. In this sense the study of surnames cannot be separated from that of Personal names. Both are to a certain extent connotative, and have certain cultural significance. In the book under review Prof. NILAKANTHA has made a collection, by no means exhaustive as she says in Introductions of the surnames of Gujaratis—mostly Hindus. This collection is classified into 14 sections as follows :—

1. Surnames after profession.
2. Surnames after place or village.
3. Surnames after Well-known ancestors.
4. Surnames given in jest or ironically.
5. Surnames after religious ceremonies.
6. Surnames animal or insect. (Totamic).
7. Surnames after castes.
8. Surnames after English names.
9. Surnames after Muslim names.
10. Surnames after Rajput names.
11. Surnames and women.
12. Inexplicable Surnames.
13. Surnames of Gujarati Muslims.
14. Surnames of Gujarati Parsis.

In each of these sections an attempt is made to explain the various surnames. Thus the book is not so much a history as an explanation of the surnames now prevalent in Gujarat. This is all right as far as it goes. But a much deeper study is possible. This requires not merely a haphazard collection, but a systematic collection caste by caste. In the beginning it may be confined to a certain region. Such a collection and its classification will reveal the surname or surnames that are common with certain classes—surnames due to castes, and what classes felt most or came under say the Muslim or the Western influence. The Gujarat Baniyas and Parsis are the first in Western India to adopt English surnames. In Bengal certain reformed Bengalis have anglicised their old Brahmanic surnames. It would be interesting to know whether the surname 'Munshi' is primarily confined to Brahmins or was also largely adopted by Baniyas and others who were engaged in similar professions.

In spite of the increasing western and interprovincial influences it is still possible to unravel the causes which were responsible for certain surnames. For in some cases surnames are merely extensions of personal names which at times do connote certain castes and sub-castes. Thus my neighbour's surname 'Mallji' perplexed me. On inquiring I found that he was a Brahma Ksatriya by caste. This explains such militaristic or gymnastic surname, as do 'Thakor' Chhatrapati and others among members of this sub-caste.

Such caste surveys should be taken up soon before this generation or the next imbibe more or more of the new impacts and have no idea of their forefathers' caste or creed of profession.¹

H. D. SANKALIA.

¹ I have certainly no idea as to how my surname was really derived—from a place or profession—though I attributed it to the latter cause when questioned by the Federal Public Service Commission. So far as I know it is confined only to a few families all closely related. But why?

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THE UTTERANCE-CONTINUUM AND THE α -PHONEME

By

S. SOURIRAJAN AND C. R. SANKARAN

[ABSTRACT] :—The precise formulation of the α -phoneme theory¹ is presented in this paper. The so-called *Aytam* in Tamil and its correspondent in some other languages (both related and unrelated) is the starting point of the investigation. GEMELLI-PASTORI's theory on the structure of the vowels supersedes WILLIS-HELM-HOLTZ-HERAMANN theory of formants and LLOYD's theory of specific relations among frequencies and is apparently identical with SCRIPTURE's profile theory. GEMELLI-PASTORI employ both the Fourier and the Vercelli methods for the physical analysis of vowels. These, particularly Fourier's, fail. SCRIPTURE's mathematical expressions lead to the conception of an infinite, densely ordered class of vibratory-bits with no ascertainable or definable change-points, first in the integral part where the *Aytam* or its correspondent is said to occur. This is then generalised from the above special cases to any configuration made of a consonant and a vowel giving rise to the construction of an α -phoneme (a pure abstraction), in the familiar manner of Dedekind's postulate. GEMELLI-PASTORI-SCRIPTURE theory is examined in the light of our experimental work; the extension of the original α -phoneme theory can more fully explain GEMELLI-PASTORI'S conception of 'specific characters.' The α -phoneme theory in its present more generalised form has therefore a wide range of applicability. The α -phoneme has a net energy which it distributes only to the respective adjacent ends of the consonant and the vowel in any consonant-vowel configuration. The most abstract conception of the α -phoneme leads to the next consequential step that the continuum of speech sounds is closed with its construction and that the concept of phoneme is certainly a pure abstraction, proving thereby the untenability of SCRIPTURE'S view as against TWADDELL'S conception of phoneme and emphasising at the same time experimental phonetics as the very foundation of Phonemics. The α -phoneme theory explains certain facts which have hitherto remained without satisfactory explanation.^{1a} The important experimental investigations of TANAKADATE confirm the validity of the present α -phoneme theory unknown to him and other investigators.

¹ C. R. SANKARAN, 'On Defining the α -phoneme' *Current Science*, January 1944, 1, 11—12. It can be easily seen that the term α -phoneme above is the most appropriate, and we are not at all here putting too much strain on the already overworked term 'Phoneme.'

Cf. L. HJELMSLEV, On the principle of phonematics. *Proc., 2nd International Congress of Phonetic Sciences*, 1956. p. 49 fn. 1.

^{1a} It is failure to realise the effect of the α -phoneme alone which leads to construct theories about the effect of the consonant on the vowel. See J. BLACK, *Am., Jour., Acous., Soc.*, 10. 203-5. Compare in this connection the interesting conclusion which H. JUNKER reaches (Die Bedeutung der Vokale. *Arch., für Vergleichende Phonetik* 223-48. 1938) that in the I E syllables the vowels act as the supporting nuclei while the consonants supply the marginal contours acoustically as well as functionally (see also *Am., Speech* 14, 1939. 152-3).

The theory leads to the 'closed chain structure theory of diphthongs' and for the first time explains the so-called 'semi-vowels' by what might be called the 'friction theory'. The α -phoneme theory emphasises the need for both 'continuity' and 'discontinuity' concepts in speech phenomena, a fact of prime wider methodological importance in science. By the context of the α -phoneme, the interpretation in regard to our proposition defining *any* vowel and *any* consonant becomes fixed. We mean only *sections* as in number system and do not assert any proposition analogous to one of elementary arithmetic. Thus the α -phoneme theory solves the greatest difficulty of quantitative comparison of any vowel with any other vowel or with a consonant, and any consonant with another—a difficulty due to physical reasons. The *physical representation* of the α -phoneme leads to the dismissal of the *continuity idea* for the *physical continuum* as an axiom—an axiom analogous to Dedekind's axiom of continuity for the line, a fact indeed of great scientific interest.^{1b} The need for working out the physiological correlates for the physical on the basis of the α -phoneme theory is also stressed in this paper.*]

- APPARATUS :
1. The recording instrument.
 2. The rotating drum, and
 3. The travelling microscope.

1 and 2 make up Scripture's speech testing apparatus.

The recording instrument with the rotating drum is shown in fig. 1. The recorder (fig. 2) consists of an oiled silk diaphragm (c), fixed over a hollow round metallic box (a), which is slipped over the short end of a brass tube (b), bent at right angles, the other end of which is connected to the mouth-piece by means of a rubber tubing. The brass tube itself is mounted over an adjustable stand as seen in fig. 1. The diaphragm responds quickly to every impulse of air and has no vibration of its own. It is 'dead beat' like a galvanometer with damping so that the errors due to Fourier-integral are reduced to minimum. The movements of the diaphragm are enlarged by a lever arrangement. Calibration is naturally difficult with this apparatus. It is next to impossible to calculate the damping co-efficients as the diaphragm changes too frequently. However, as the curves we get do not represent the actual vibrations of the vocal cords, but only the glottal puffs, we assume that the errors due to the instrument are not too large to vitiate the conclusions presented in this paper. The lever consists of a light broomstick resting over a glue-piece placed at the centre of the diaphragm. At the fixed end of the lever, a tension spring (h), operated by a screw (i), controls the range of the vibrations of the lever. The free end of the lever is fitted with a celluloid blade which marks the movements of the diaphragm over a smoked paper fixed around a rotating drum. The rotating drum works over one of the three different speed axes which are driven by spring mechanism, which is exactly similar to a gramophone machine with arrangements for the control of speed.

The apparatus has provisions to take the record of the movements of the nasal cavity, the movements of the chest and the abdominal pressures as well, all simultaneously, during any utterance.

* Presented for reading at the Physiological Section of the 32nd Session of the Indian Science Congress to be held at Nagpur, on 4-1-1945.

After the required number of curves, along with a time curve from a standard tuning fork, are taken on the smoked paper, the impressions are fixed by gently passing the smoked paper through a solution of white hard varnish (1 part) in rectified spirit (12 parts) to which a drop of castor oil (to afford thorough flexibility) is added, and then by drying the paper.

The records are studied under a travelling microscope (fig. 3) specially designed for the examination and measurement of ordinates of curves having a considerable area, such as are obtained by tracings produced by changes of air pressure at the mouth during speech. The microscope consists of a large rectangular plate of glass in metal frame supported on feet, which can be inclined if necessary so as to tilt it. A carrier which can be moved by racks and pinion-screws holds the microscope. It can traverse 145 mm. back to front along a transverse bar and 545 mm. longitudinally along a longitudinal bar. There is graduation on the bar and by means of verniers, readings to 0.01 mm. can be taken with exactitude, the least count of the instrument being 0.05 mm. There is provision for lenses in the verniers for reading. These lenses are illuminated by small electric bulbs and opaque objects may be illuminated by a bulb attached to the microscope near the objective. The records are clamped to the base plate by longitudinal or transverse adjustable bars or kept in place by a piece of glass laid upon them.²

With SCRIPTURE'S speech testing apparatus several records of different phrases and words were taken, a few of which are reproduced and studied below:—

Fig. 4 is the record of a short Tamil phrase *nān ādaicceyven*. First we make a rapid survey of the whole record which is exhibited over a base line so as to give an idea of the nature of the glottal puff during utterance. The record starts with a few strong vibrations which rapidly alter into a number of vibrations of small amplitude and therefore seems to suggest the weak nature of the intensity of the sounds. These vibrations represent the word *nān* in the phrase. The initial large amplitude suggests the relatively high intensity of *nā*. Since most of the vibrations of *ā* in *nān* naturally occur in the nasal cavity, the vibrations towards the end are feeble; they do not indicate the weak nature of the intensity. The curve for *nān* ends at the dropping down of the vibrations of small amplitude and high frequency.

Then a number of strong vibrations representing *a* begins after which one sees a series of vibrations of relatively small amplitude. After the strong vibrations for *a*, a click is observed and then a sudden rise in the path of the wave-form is noticed. These portions correspond to *δ a i* in the recorded sentence. The sudden rise is due to the explosion of *δ*.

The consonant *c* brings down the path of the wave-form. This is due to the arrest of the glottal puff. The sudden rise again in the path of the wave form is due to the release of the puff of the second *c* in *cey*.

After the rise a number of close vibrations are noticed with small amplitude. These vibrations represent the diphthong *ey*. The diphthong extends very near up to the descending part of the curve,

¹ H. C. CARSLAW, *Introduction to the theory of Fourier series and integrals*, 3rd ed., pp. 24-5, 1921.

² *Nature* 1935. 135. p. 191.

After η the rest of the record is for ge , g being an explosive, naturally the path of the wave-form rises and the clear structure throughout is for e . The structural continuity is seen throughout.

Figure 9 is the record for the word *aḥayam*. The limits are marked in the figure by very closely observing the record while it was taken on the smoked paper. Also the observations are made quite a number of times. The limits are marked as accurately as possible. In every case we find that the structural continuity is maintained throughout with no abrupt change-point anywhere. Hence the difficulty of assigning the limits to the individual speech sounds.

Fig. 10 is the record for the same word *aḥayam* uttered by a different person. Here also the structural continuity throughout is easily seen. Changes are gradual; the change from one individual speech sound to another is quite imperceptible.

Attention may however be drawn to the structure for a after y and before m . Comparing it with the structure for a after n and before δ in fig. 4 it can be seen that it is remarkably similar. In fact fig. 4 and fig. 10 are the records of the respective phrases uttered by the same person. If one is quite well acquainted with the structure of a particular speech sound for a particular person, it is very easy to detect the structure of that particular sound in any other record of the same person provided the records were taken under identical or at least almost the same experimental conditions.*

Fig. 11 is the record of the Tamil word *paravudal*. The record begins with an ascent. The first few vibrations represent p and the next a ; the strong vibrations are due to r . After r the vibrations representing a occur in a downward straight path of the wave form. It is interesting to compare the structure for a in this portion with those of other a 's referred to in the preceding paragraphs. The similarity is quite recognisable. This record is also that of the same person. (The international phonetic symbols are put down in the record to indicate the portions corresponding to the individual speech sounds). Here also we note the structural continuity throughout. Thus we see that the gradual change from one speech sound to another is found in every speech curve.

The consonants are physico-phonetically independent of the vowels.⁵ We observe that when a consonant and a vowel come together in speech, the change-point from the consonant to the vowel is not definite as is clearly seen by the impossibility of locating the exact point where one sound ends and another sound begins in a speech record. But it is natural, therefore, to conceive that when a consonant (c) and a vowel (v) [or a vowel (v) and consonant (c)] come very close together to form a [cv or vc] sound-bit, they combine in such a way that nowhere is there any sudden change from one to another. Hence we come to the conclusion that between such a consonant and a vowel (or a vowel and a consonant) an external agency quite necessarily comes into force whose prime function it is to combine the two independent elements as smoothly as possible with no abrupt change anywhere.

Digressing here for a moment, let us proceed to consider the nature of the vowels.

* TANAKADATE "A study of the Japanese Phonemes by means of Tone Films" *Proceedings of the Second International Congress of Phonetic Sciences*, 1936, 119.

GEMELLI and PASTORI⁶ handle the problem of the nature of the vowels. They show that a curve for a vowel can be divided into a set number of vibration bits of similar, but not identical, character occurring in immediate succession. They employ two methods to obtain a numerical expression for the curve in a vibratory bit. By the first method, the form of the wave—vibration-profile—is expressed as the sum of a series of sinusoids with frequencies in the relations 1, 2, 3 ... where the number 1 corresponds to the number of times with which the entire length of the wave could be repeated in one second (Fourier polynomial, harmonic series). By the other (Vercelli) method the wave-form is expressed as the sum of a set of sinusoids in the series 1, . . . , in which the number one has the same meaning as in the harmonic series and the other numbers may stand in any relations whatever to the first one. The results with both the methods agree in having very small values for the first member. There is complete disagreement in the results in all other respects.⁷ The harmonic analysis shows strong amplitudes occurring in groups and small amplitudes everywhere else. The Vercelli analysis shows a few strong amplitudes that are not grouped. These belong to the frequencies not harmonic to the first number. It is obvious that explanation is necessary for the complete discrepancy. Interpretation of either set of results is also necessary. It must be remembered that every vibration profile consists of a wave movement that begins strong and fades rapidly to zero. A prime characteristic of such a wave is its factor of decrement which is seen in modifying the values for the amplitude by producing amplitudes for all members and by adding a meaningless constant. Snapping of the thumb out of the mouth or suddenly releasing a pressure of the air at the glottis with the mouth open gives rise to vibration with decrements, which is exactly like a curve of a vibratory bit in a vowel.

There is a decremental index p for each free vibration. These decremental indices are infinitely variable. An infinite number of decremental factors are present between 0 and ∞ as a consequence of which an integration over $d p$ between the limits 0 and ∞ is the decrement for each of the inner frequencies.⁸

GEMELLI and PASTORI⁹ give the results of Fourier and Vercelli analyses of various vowels. The conclusion seems inevitable to them from the data, that the specific nature of a vowel vibration is not the result of the presence of a specific frequency or frequencies (WILLIS-HELMHOLTZ-HERMANN—theory of formants) or of specific relation among the frequencies (LLOYD), but of a special complex of elements which GEMELLI and PASTORI call the 'specific character.'

⁶ See GEMELLI-PASTORI *L'analisi electro-acustica del linguaggio* (Milan 1934). E. W. SCRIPTURE, *Nature* 136, 1935, 455-6.

⁷ See also GEMELLI-PASTORI *Analyse électrique du langage. Recherches sur la Nature des voyelles. Archives-Néerlandaises Phonétique Expérimentale* 10 1-29. Also GEMELLI-PASTORI, 'Nature of Vowels,' *Rev., d'acoustique* 2 pp. 169-188, May 1933.

⁸ E. W. SCRIPTURE, Observations on filmed and filtered Vowel, *Nature* 130, 1932.275-6.

⁹ See also GEMELLI, Nouvelle contribution à la connaissance de la structure des voyelles. *Archives Néerlandaises phonétique expérimentale* 14. 1938. 126-64 where he attempts to prove the inadequacy of the theories of Helmholtz and Hermann and of their modern derivatives for a satisfactory explanation of the structure of vowels. To him a, i and b are three typical fundamental and irreducible vowels. It is on this basic conception alone, he contends, that the structure of vowels can be understood. Cf. again GEMELLI 'Vowel-structure' *Pont. Acad. Sci. Comm* 1 1 pp. 1-39, 1937.

According to the profile theory of SCRIPTURE¹⁰ the vocal cords simply excite frequencies characteristic of the vocal cavities; and the air in the cavities is set into vibrations by a puff of air from the glottis; as soon as these vibrations fade they are started afresh by a second puff. It is however not necessary that these puffs should follow periodically.

The apparent identity of GEMELLI's view with SCRIPTURE's profile theory is too obvious to be pointed out. According to the latter also, the vibratory bits are perceived as unanalysed profiles. We might consider the free vibrations constituting the profile as the sum of a series of component free vibrations whose radian frequencies may be indicated by $\omega_1, \omega_2, \omega_3, \dots$. The result of the analysis is the discovery that all the frequencies from 0 to ∞ are present, leading us to the irresistible conclusion that the profile is an integration of $d\omega$ between 0 and ∞ . The amount of contribution to the profile is determined by the amplitude of each inner vibration. The forces that control the formation of the profile determine the amount of the particular amplitude for a given frequency, which is again determined for a given profile by an integration over the particular frequency with the form of the profile $f(t')$ as amplitude within the limits α, β of the profile. Scripture¹¹ gives

$$(1) \quad y = f(t') = \frac{1}{\pi} \int_0^\infty d\omega \int_0^\infty dp \int_\alpha^\beta ae^{-p\omega t'} \cos \omega(t' - t) dt'$$

as complete expression for the vowel profile and

(2) $\omega = f(t')$ and $p = f(t')$ as the additional equation of the change of the radian frequency and the factor of decrement. It is obvious that the formulæ (1) and (2) express a *continuous process* which is not a sum of *discrete* factors except as an approximation. Thus the unanalysability of a vowel profile into a limited number of variables is established. It is an infinite class whose representation by a Fourier analysis,¹² or for that matter any physical analysis or synthesis into a limited number of variables can be only an approximation. It is recognised by its form in time which can be enlarged or diminished to any extent.

In the articulation of certain Tamil words, what is traditionally known as the *Āytam*, is met with. The *Āytam* correspondent in some other languages both related and unrelated is also known. The *Āytam* along with its correspondent in the languages where it is so far recognised is given the name the α -phoneme and its definition by means of Dedekind's segments has already been attempted.¹³ We now make a further generalisation applying Dedekind's theorem for any consonant-vowel configuration in speech. Let any consonant (c) and any vowel (v) together constituting

¹⁰ E. W. SCRIPTURE, Puff and Profile theory of the Vowels, *Nature* 136, 1935. 435-6.
E. W. SCRIPTURE, Vowel vibrations and Vowel Production *Nature* 142. 619. 1938.

¹¹ E. W. SCRIPTURE, *Nature* 130. 1932 275-6.

¹² See E. W. SCRIPTURE, Fourier Analysis and vowel curves, *Nature* 130. 1932. 965-6.
E. W. SCRIPTURE, Failure of Fourier analysis applied to vowel vibrations, *Nature* 136. 1935. 223. SCRIPTURE clearly shows that neither physically, nor physiologically nor psychologically any analysis occurs: E. W. SCRIPTURE. The Nature of the Vowels, p. 50 and p. 146. *Report of a discussion on audition* held on June, 1931 at the Imperial College of Science, (the University Press, Cambridge). See also E. W. SCRIPTURE 'Film tracks of English vowel, *The Journal of the Acoustical Society of America*, Vol. 6, January 1935, p. 170.

¹³ See *Current Science* 13, pp. 11-12

a CV speech sound be considered. The arguments in the preceding paragraphs demonstrate that such an integral part is an infinite class of speech sound profiles and is densely ordered. For the transitive '(ordering) relation' R being defined by *time* (i.e. later), between any two elements x and y (vibration-profiles), another element z can be interpolated such that z stands in the relation of R to x , and y stands in the same time-relation (later) of R to z . The conception of an α -sound is usually restricted to a segment between two successive change-points which are those at which any organ is supposed to change from one type of function to another.¹⁴ Now as SCRIPTURE points out¹⁵ it is equally possible to speak of the profile of a vowel perceived without analysis, just as we speak of any vibratory bit. Since consonants and vowels are mutually exclusive (physico-phonetically), we may say that when a consonant and a vowel come close together so as to form a CV¹⁶ speech bit or speech unit, we have a Dedekind-section in which the lower segment consists of consonant sound profiles and the upper segment of NOT-C¹⁷ [C = the sub-class of consonant profiles in the configuration considered, namely, a consonant followed by a vowel, which is extended into the *larger class* containing some 'cuts' of the configuration in the familiar manner of Dedekind's postulate, so that the sub-class of consonant profiles, regarded as the sub-class of the now extended *larger class*, has the least upper bound.¹⁸] We have also a second Dedekind-section in which the lower segment is composed of NOT-V and the upper segment of V. The interval between the two section-points may now be defined as the α -phoneme.

Let us proceed to study our records still more deeply. As already observed the study of the change-points in continuous ordinary speech is a matter of considerable difficulty. But the study of the change-points is necessary, as seen from the previous para. Everywhere in the speech records, while we pass from one speech sound to the next, we are passing through an intermediate region which cannot be divided at any definite point so that, the region left to that point belong to one speech sound and right to it belongs to the other. Moreover the structure in the intermediate portion is not identical with those on either sides. For example the speech record of $v\bar{a}$ in Fig. 8 consists of three characteristic portions as shown in Fig. 12.

In the case of $a\delta$ in $a\delta ai$ in fig. 5 the three characteristic structures are very marked as seen in Fig. 13.

In the case of $\bar{a}n$ in $n\bar{a}n$ in fig. 6, the three characteristic portions are well observable: [Fig. 14].

Curiously enough, if we analyse minutely the curves through a microscope, for every CV or VC (consonant—vowel or vowel—consonant) group three characteristic structures are noticed.

How are these to be explained? First we notice that every vowel stretch^{18a} is

¹⁴ C. F. HOCKET, *Language*, 18, 5. ¹⁵ E. W. SCRIPTURE, *Nature* 136. 1985 456

¹⁶ Or should a vowel and a consonant form a VC bit.

¹⁷ Non-consonantal sound-profiles. The supposition made here of a segment consisting of such elements, is an obvious corollary; or, if one likes, a *logical extension* of the Profile theory of Vowels.

¹⁸ All elements which are 'greater,' [here therefore, by taking *order in time*, as the transitive relation R , 'later than those of the sub-class] are upper bounds of the sub-class.

^{18a} Portions which show very prominent waves are defined vowel-stretches i.e. we define a vowel stretch as a portion of speech having strong vibrations.

made up of a series of inseparably adjoining vibration bits; also in every vowel stretch there is a continuous gradual and progressive change in the time profile and different vowel stretches have different time profiles.

If we contend that every individual speech sound in ordinary speech has three stages such as starting stage, steady stage and a decaying stage it is as good as contending that every speech consists of a number of different individual speech sounds standing aloof characteristically but closely spaced mechanically. For any individual speech sound (occurring in a continuous speech), which may be supposed to consist of the three stages referred to above, can have a macrophonic record representation as shown in figure 15 in which the principal character of the structure is the same throughout, but only the vibrations are strong in the middle and weak at the ends. Since each speech sound has a characteristic structure of its own—which is mainly seen at the middle portion of the record representing that speech sound—wherever a change in structure occurs, such a change should be clearly recognisable. But this is never realised in practice; for, one structure passes on to the other very gradually and imperceptibly. Hence speech does not consist of “blocks of constant sounds” united in a loose manner. Hence the supposition that an individual speech sound in ordinary speech necessarily consists of three parts and that a continuous speech is simply putting together those parts of the various elements, rests on unsatisfactory experimental evidence. Moreover such a supposition may be considered as erroneous by the above theoretical discussions on the continuity idea in speech.

It is noteworthy that SCRIPTURE, noticing the extraordinary character of the ‘intermediate’ portion in his records points out how the term “glide” is merely a makeshift to help us out of the difficulties introduced by the ‘erroneous view that speech is made up of a series of independent elements.’¹⁹

TANKADATE also makes note of the intermediate portion and describes it as playing no significant part in the formation of sound quality.²⁰

Though several workers made note of the extraordinary character of the middle portion of a record of a CV or VC unit, such a character has so far received no satisfactory explanation. The construction of α -phenome in a CV or VC configuration, affords an explanation of this curious phenomenon.

Vowels and consonants belong to two mutually exclusive classes²¹ since they are independent of one another physico-phonetically. The vowel and the consonant form an infinite class in any consonant-vowel configuration with a Dedekindian ‘gap’. The consonant as well as the vowel may be conceived as consisting of a number of groups with definite boundaries. Each such group represents one particular individual speech sound. The main characteristic of a particular speech sound will not alter as long as at least a part of the group occurs. Now we see that if two groups belonging respectively to the consonant and the vowel which are mutually exclusive physico-

E. W. SCRIPTURE, Film tracks of English Vowel. *The journal of the Acoustical Society, America*, 6. Jan., 1935 p. 169

¹⁹ E. W. SCRIPTURE, *Researches in Experimental Phonetics*, p. 42.

²⁰ A. TANAKADATE, *op. cit.*, 118.

²¹ The physico-phonetic independence of the vowels over the consonants is the basis of the assumption of the mutual exclusiveness of the vowels and the consonants. See footnote 5.

phonetically speaking come together, a Dedekindian 'gap' may be conceived. The two groups are linked by this 'gap' so as to form a unit of continuity with no sudden change anywhere in the series.

Interpreting physically, the α -phoneme may be conceived as consisting of a definite energy which comes into force whenever a consonant and a vowel (or a vowel and a consonant) come together so as to form a continuous speech. Its prime function is to bring about a thorough continuity between the two sounds. Nowhere in the cv or vc bit an abrupt change-point exists. The change is brought about gradually and imperceptibly. Naturally the α -phoneme plays its part at the end of c and at the beginning of v in a cv bit or at the end of v and at the beginning of c in a vc bit. It distributes its energy in the intermediate region so that the gradual change is as smooth as possible. The ratio of its distribution over the c and v depends on (1) the nature of the consonant and the vowel that combine; (2) and the mode of utterance which depends upon the function of appeal.²² The absolute value of the α -phoneme energy will naturally depend on the character of the consonant and the vowel. For a particular consonant and the vowel the value ought to be the same, but the relative mode of distribution will be varied depending on the mode of utterance. Because of the distribution of the energy at the change point in a cv configuration, the end and the beginning structures of the consonant and the vowel respectively will be altered in such a continuous manner as to suit the psychological factors. It is to be understood clearly that the α -phoneme comes into existence only when a consonant and a vowel (or a vowel and a consonant) come together in speech so as to form a continuous speech unit. Hence the α -phoneme as such cannot be recorded isolated. Only its influence can be recorded and studied. For the sake of clarity a typical consonant vowel record may be considered [Fig. 16].

The first portion of the record entirely represents the consonant and the last portion of the record entirely represents the vowel. Somewhere in the intermediate portion c ends and v begins. The exact point where one ends and the other begins cannot be located since thorough continuity is ensured by the distribution of the α -phoneme energy. We wish to make clear that the intermediate portion does not represent the α -phoneme. As already pointed out the α -phoneme by itself cannot have any separate representation in a record. Only the area over which its influence is felt can be approximately fixed. We wish to emphasise once again that the whole record represents only the consonant—vowel representation; every point in the record either belongs to the consonant part or to the vowel part; only at the shift region it cannot be accurately fixed which point belongs to this part and which point to the other, the region influenced by the α -phoneme has as much relationship to the consonant part as it has to the vowel part.

It is well known that the consonants are highly characterised by the rapidity of their tone decay while the vowels can be maintained for any length of time; again while consonants are more noises, the vowels have got a musical quality and hence they are capable of sustained resonance. Now when we speak of a typical consonant and a typical vowel we may speak of them as those belonging to two mutually ex-

²² J. Von LAZICZIUS, A new category in Phonology, Proceedings of the second International Congress of Phonetic Sciences (Cambridge, 1936), p. 58.

clusive classes in which one class has the opposite characteristics of the other. For example let us consider a *c v* speech unit, say, *ka*. This unit is made up of a typical consonant and a typical vowel each having characteristics in equal and opposite degree. Figuratively speaking, it may be said that the two represent two equal forces in opposite directions. Naturally to combine these two elements a greater force is necessary. But once they combine, their affinity for each is so great that as a result, the speech unit comprising the two becomes the smoothest possible one. Extending our figurative language, when the two opposite forces are brought together such that their line of action is the same, but in opposite directions, the system will be in thorough equilibrium. Then what will be the nature of a record of such a speech sound unit? Obviously (1) the region affected by the α -phoneme will be appreciably long; (2) the change in structure will be characteristically smooth; (3) an amount of strain in the structure will be noticed in the change-in-structure region. A typical example of such a record is that of *ku* recorded by TANAKADATE²³ given in the Appendix I, a full discussion of which is given later in this paper.

Let us consider consonants like *g*, δ , β etc. They are very much related to typical consonants *k*, *c*, *t* etc. Depending on the mode of utterance they can either be made lenis or fortis. In any case their consonantal character is a degree less than that of the typical consonants. Typical consonants are often produced by simply an emission of air through specific passages in the speech organs. Our records represent them only as lines. Often they raise the line of the record. Those that have a complete stoppage of breath are recorded as a line in the starting position of the speech recording point of the apparatus. Fortis utterances result in an upward jerk in the path of the wave form. The record of *g*, δ , β' etc. show not simply a line, but very faint vibrational structure. Hence in a continuous utterance-event comprising such a consonant and a vowel, say *ge* the distribution of the α -phoneme energy need not be the same as that in a configuration *ke*.

As regards other consonants, *m*, *n*, etc. their relationship to vowels is a little more than those of the consonants referred to in the above paragraph. As HELMHOLTZ points out²⁴ "the formation of *m* and *n* in so far resembles that of the vowels, that no noise of wind is generated in any part of the cavity of the mouth which is perfectly closed and the sound of the voice escapes through the nose. The mouth merely forms a resonance chamber which alters the quality of tone." Moreover in our records though the structures for *m*, *n* are very faint, yet they are more pronounced than those of *g*, δ , β etc.

The other class of speech sounds *y*, *r*, *l*, *v*, etc. commonly called semivowels, have the properties of both the consonants and the vowels each in a lesser degree. They can each be more approximately considered as an offspring of a vowel and a consonant having the consonant qualities as their primary mother quality. However we see that they are very much related to vowels. They have clear vibrational structures.

As regards the structural continuity in a *c v* or *v c* configuration, two observations are of prime importance: (1) the characteristic change in structure in the intermediate

²³ A. TANAKADATE, *op. cit.*, 118.

²⁴ HELMHOLTZ, *Sensations of Tone* p. 68.

region, (2) and the length of the region affected by the α -phoneme. The exact nature of the α -phoneme can be understood only by a consideration of these two observations.

Each speech element, i.e. individual speech sound, may be conceived to be made up of a number of fundamental units, characteristic of the element. In any particular utterance the number of such fundamental units depends on the time of utterance of the element. Such a fundamental unit is different for different elements. Each fundamental unit may be conceived as representing a definite force.

As already pointed out, if a typical vowel and a typical consonant possess opposite characteristics we may represent the force units of vowels in one direction and those of the consonants in the opposite direction. Hence every force unit has got a definite magnitude and direction. Let us represent consonant force units by an upward arrow (\uparrow) and vowel force units by a downward arrow (\downarrow) the length of the arrows representing their magnitude.

Let a consonant c have a force unit F_1 represented by \uparrow in direction and magnitude. An utterance of the consonant may be represented as in Fig. 17.

Obviously the number of such units depends on the time taken for the utterance and also on the magnitude of the force unit.

Let a vowel v possess a force unit F_2 represented by \downarrow in direction and magnitude. An utterance of the vowel may be represented as in Fig. 18.

Now we have a consonant (c) and a vowel (v) of specified dimensions. In uttering the consonant and the vowel separately if T be the time interval between the two utterances, such an utterance may be represented as in Fig. 19.

Our present object is to combine this consonant (c) and the vowel (v) so that there is continuity throughout. Such an end will be achieved by combining the final unit of c and the initial unit of v which may be represented as in Fig. 20.

To furnish continuity between the two, two operations have to be performed, (1) the time of utterance should be made to coincide. This can be done by uttering c and v very closely so that T is zero, (2) a continuity between the magnitude and direction of the force must be ensured.

It is only in (2) that our α -phoneme comes into play. According to this theory when a consonant and a vowel comes very close together so as to form a continuous speech, a third force automatically comes into operation. That force has got a definite magnitude. Its direction is aimed at a smooth flow of speech comprising the consonant and the vowel in question. It has no specific direction for itself. It can accommodate itself in both the directions. It acts both on the consonant and on the vowel such that a continuity in the magnitude and direction of the force units of the consonant and the vowel is ensured.

Once the consonant and the vowel are uttered such that the interval between them is zero, their change point can be represented as in Fig. 21.

Here evidently there is an abrupt change in magnitude and direction.²⁵

²⁵ See KÖHLER's formulation—"In every process which issues at all in an end-situation, independent of time, the mode of distribution shifts in the direction of a minimum of configurative energy." KOFFKA, *The Growth of the mind.*, p 397, note 102. 1930.

We are now confining our attention on the changes that occur once the consonant and the vowel are uttered very closely such that τ is zero. The changes that occur after such an utterance are quite independent of this time (τ). To ensure thorough continuity the change-point should have the minimum configurative energy. That is to say, at the shift point the algebraic sum of the force units is zero. Or

$$F_1 + F_2 = \text{zero.}$$

According to our theory such a condition is ensured by the α -phoneme which has a definite force. The force distributes itself over the consonant and vowel force-units at the shift point such that the resultant algebraic sum of the forces at the shift point is zero. If x represents the force due to the α -phoneme, it distributes a part x_1 of it to F_1 and the rest $x - x_1$ to F_2 such that

$$F_1 + x_1 = F_2 + (x - x_1)$$

They being in opposite directions their algebraic sum is zero. The link between the two forces in opposite directions is through a common force x . Because of these modifications in the values of the force units at the shift point, the structure in the intermediate portion in a CV or VC speech record is different from those of either C or V. Thus the characteristic structure in the intermediate portion is explained.

As already pointed out, each speech element may be defined as corresponding to a specific group in either of the two classes—consonants and vowels. The classes may be represented as in Fig. 22.

The consonant class as a whole may be supposed to consist of a number of groups A B, C D etc. each representing a particular consonant speech element. Similarly the vowel class as a whole may be supposed to consist of a number of groups E F, G H* etc., each representing a particular vowel speech element. It is easily seen that each group has a *temporal order relationship* with every other segment.

Let a consonant (C) and a vowel (V) be uttered very closely so that they two form a continuous speech unit. In the time continuum let C correspond to the group represented by A B and V the group represented by G H. Their temporal order relationship is represented by B G. In the continuous consonant-vowel utterance 'the minimum configurative energy region' should extend throughout this 'temporal order relationship region.' Otherwise continuity through Dedekindian 'gap' is impossible.

It is obvious that this *temporal order relationship region* is different for different groups. The length of the region wherein change in structure is brought about in a speech record of a CV unit (or VC unit) naturally depends on the magnitude of the *temporal order relationship region*. Thus the length of the intermediate portion is explained.

In short, it may be stated that the α -phoneme brings about continuity in speech through its relative varied distribution.

It may be argued that when the magnitude of the force unit of the consonant and that of the vowel in question are the same, a minimum configurative energy of zero at the shift point can be realised even without the existence of the α -phoneme. But it is not so; for, in that case, even though the magnitudes of the force units are the same, they can simply stand together isolated. If there should be thorough continuity throughout, a common force participating in both has to come into existence. Hence

it may be pointed out that the role of the α -phoneme is independent of the relative values of the force units of the elements between which continuity is ensured.

Let us now proceed to consider what happens when a consonant and another consonant or a vowel and another vowel come close together. When two such elements of the same class come together in a flow of speech with no stop, is there thorough continuity between those two elements?

According to the theory developed in the preceding paragraphs a cc (or vv) configuration is represented by two groups in the same class. There is no Dedekindian 'gap' between the two. Hence in such an utterance the α -phoneme does not come into existence and the change from one segment to another cannot be smooth. It means that there is no continuity between the c and c or v and v—no continuity in the sense, that the change-point is quite recognisable—in such a speech record the change-point can be located with appreciable accuracy.

Referring again to fig. 4, the portion representing *nān aḍaic* is a continuous one i.e. nowhere is noticed any abrupt discontinuity. Similarly is the portion representing *ceyven*. But consider the portion representing the two adjacent consonants cc. The sudden change in the path of the wave form does represent a discontinuity, in the sense we may precisely say that at the point the curve begins to rise up, the second c begins. This is due to the successive closure and release of the glottal puff. Records taken with greater speed of the drum, give a structure as shown for the cc portion (Fig. 23).

The horizontal line indicates the momentary stoppage of the issue of puff. It is to be noted that the whole sentence '*nānaḍaicceyven*' uttered in one breath is, as a whole, a *non-stop utterance*. In such a *non-stop utterance* we notice a discontinuity when the two consonants come together.

Fig. 24 represents *vāiṅge* (Tamil). Here we have an instance of two vowels coming together, namely '*ā*' and '*i*'. The record begins with an ascent. The first few vibrations are for '*v*' and the rest upto the top for '*ā*'. The curve suddenly descends down vertically and then a few vibrations are noticed. They represent '*i*'. Here we find that the two vowels, even when uttered very closely, exhibit a discontinuity in the record, for it is possible to locate the exact change point. In this case '*ā*' ends at the top and '*i*' begins at the bottom. For *y* only the path of the wave form is seen since most of the vibrations during the *y* utterance occur in the nasal cavity. Then again we have the instance of two consonants coming together namely *ṇ* and *g*. With exact certainty we can say that '*g*' begins at the point where the strong vibrations appear. It may be noted that here '*g*' appears as explosive. The last few vibrations represent '*e*'. The continuity that exists between '*g*' and '*e*' is highly remarkable.

FIG. 25 : also represents the word *vā iṅge*. This still more clearly illustrates the point at issue.

Thus we see that we have to accept both the views that speech is continuous and at the same time discontinuous—a conclusion of far-reaching methodological importance in science.

Let us now proceed to discuss some of the observations made by TANAKADATE in his 'A study of Japanese phonemes by means of the tone film.'²⁶

²⁶ TANAKADATE, *op. cit.*, 118-121.

First TANAKADATE observes that 'the record of any single syllable of the Japanese sound elements $k u$ or $k e$ presents three characteristic portions. The beginning corresponds to the consonant k : the end corresponds to the vowel u and there is an intermediate portion between the two where the amplitude of the oscillations is reduced to an insignificant amount. The middle portion does not play any important part in the formation of sound quality, or the Japanese phoneme. Cutting away this part or lengthening it artificially does not change the reproduced quality of the sound or sound value.'

The above observations are in conformity with the theory developed in this paper which also demands three characteristic portions in any $c v$ record representation. The "intermediate portion" corresponds to the region over which the influence of the α -phoneme extends. Somewhere in the "intermediate portion" c ends and v begins and our α -phoneme effects its influence over a range so as to bring about no definite change point that may separate c and v .

Even though TANAKADATE maintains, that the amplitude of the oscillations in the middle portions is insignificant, it is to be noted that fine structure is well observable even in that portion, thus showing that it is not simply a line. Further minute observation even visually shows that the oscillations show a gradual change throughout. It is also a point to note that the transition in this case is (1) one from a relatively smaller amplitude to one relatively of higher amplitude, (2) from one type of structure to entirely another type of structure, (3) from a consonant to a vowel. Hence we naturally expect the α -phoneme to execute the following functions.

(1) That the amplitude change should be gradual in the sense that it should pass through all the stages that the difference in their relative amplitudes may permit, (2) that the structure from one type to the other should be gradual in the sense that nowhere any abrupt change is noticed, (3) that the change from c to v should be gradual in the sense that there is no definable change point; that is to say that the gradual change in amplitude in the region where the α -phoneme has influence shall not be of such a character as to affect the gradual change in structure or vice versa; in other words the change in phase also is gradual.

All the above expectations are observed in the intermediate portion. It may be argued that at the point where e begins [as denoted in his figure given in the appendix I] there is marked change in structure. But it is not the case; for at that point only strong vibrations begin. Beginning of a strong vibration does not necessarily mean beginning of a different structure. On the other hand the beginning of a strong vibration also can be naturally expected; for the vibrations for e being released "from the pressure of the α -phoneme regain rapidly the original strength. Hence the apparent beginning of strong vibrations.

TANAKADATE maintains that the middle portion does not play any *important*²⁷ part in the formation of sound quality. We are right in maintaining that every speech sound has got an individual characteristic structure. When such speech sounds occur in connected speech our α -phoneme comes into play. Its main function is to add some more characteristics both to the consonant and to the vowel. By removing such addi-

²⁷ *Italics ours.*

tional characteristics no alteration is effected in the main quality of the speech sound. Hence 'the intermediate portion cannot play any *important* part' in the formation of sound quality. The question arises as to the nature of the function of the α -phoneme as regards the formation of sound quality. A particular speech sound occurring under particular circumstances cannot be identical with the same speech sound occurring under different conditions. There is bound to be some difference, however minute that may be. That difference is mainly determined by our α -phoneme through its relative distribution.

TANAKADATE adds that the sound value is not altered by cutting or lengthening the intermediate portions. The first can be explained by saying that the α -phoneme does not determine the primary sound value of a speech sound. The second can be explained by saying that the distribution of the α -phoneme having been effected in a particular manner while the syllable is naturally uttered, its distribution ratio cannot be altered by lengthening it or by shortening it artificially.

His observation that "the same holds good when the consonant is followed by any other vowel" is highly valuable as a first step in establishing the validity of the α -phoneme theory on experimental grounds.

Of course when a consonant and a vowel are uttered separately, there is no continuity between the two. Perceptibly there is no α -phoneme between the two. Hence we are led to think as to what is the minimum time interval so that the influence of the α -phoneme between *c* and *v* becomes perceptible forming one thorough continuous utterance. Such time interval is naturally different for different persons.

TANAKADATE adds "when the *k* part and *u* part of the curve are separated by more than 0.3 sec. the *k* sound becomes no longer perceptible. This is also in strict conformity with the prediction which our theory affords. For in any *c v* utterance, the time of the utterance of *c* is very small when compared to that of *v*. When such is the case, if *c* and *v* are separated so far away so that the influence of the α -phoneme is no longer perceptible, it is but natural that *v* alone which is more predominant as regards the time of utterance is concerned, is heard; *c* has comparatively too small a time of utterance. Further it has no agency which can so link it up perceptibly with the more predominant *v* that with the audibility of the latter alone its audibility also might be ensured. Hence in this particular case when the separation takes place between *k* and *u*-part of the curve the *k* sound becomes imperceptible.

But on the other hand when an imperceptible consonant and a vowel come together sufficiently close so that the influence of the α -phoneme is clearly marked, then, as indicated in the above paragraph the consonant will become perceptible; for when the vowel becomes perceptible, it cannot do so without the consonant by its side because the effect of the α -phoneme is sufficiently marked as to link *c* and *v*. Hence it is that TANAKADATE says "an imperceptible consonant becomes perceptible when a vowel comes next to it." In the absence of precise mechanism he coins a new word—"latent sound." The precise mechanism is evident when the significance of the α -phoneme is clearly understood.

TANAKADATE proves the independent existence of consonants and vowels physico-phonetically. This is of high importance in the sense it is a fundamental experimental

basis over which the α -phoneme theory is built ; for, the theory starts by asserting that consonants and vowels are mutually exclusive on physico-phonetic basis.

The α -phoneme has been defined as constituting a net energy between a particular c and a v. Its absolute value, as already stated, depends on the nature of the consonant and the vowel. An experimental illustration is however worth giving here. Even that fortunately, has been already furnished by the work of Tanakadate. We refer to his experiments on the backward recitation of his tone film records.

Running the tone film "Ezakutama" in the reversed direction gave a *correct* recitation and the sound came out to be "Amatukaze." The first point to note here is, that when he speaks of the recitations of the reversed record, he does not speak of the mere sound value, but of *correct recitation* i.e. the reversed sound is identical in every way with what can naturally be expected. Let us consider a c v bit (say *ma*)²⁸ in both the cases. The *ma* in the first is made up of *m* and *a* which follows *m* ; the *ma* in the second case is made up of *m* and *a* which precedes *m*. What we contend is that the α -phoneme between *m* and *a* in the 1st case is identical with the α -phoneme between *m* and *a* in the second case and that is why a correct recitation is heard. If that were not the case then let us suppose that they are different i.e.

I case *m* α_1 *a*

II case *m* α_2 *a*

Since α_1 and α_2 occur under identical circumstances, the mode of distribution is constant in both the cases. If α_1 and α_2 are different let us assume for the sake of argument that α_1 is greater than α_2 . Then since the sound in both the cases is identical and consequently the mode of distribution is also identical, in the first case it is quite sufficient that an α equivalent to α_2 is present i.e. an α equivalent to $\alpha_1 - \alpha_2$ is in excess without any influence either on c or on v i.e. an amount $\alpha_1 - \alpha_2$ remains independent which is quite contrary to the fundamental point in the whole theory i.e. α has no isolated existence. Hence $\alpha_1 - \alpha_2 = 0$ or $\alpha_1 = \alpha_2$.

In the above argument only one c v bit was taken. Similar argument can be advanced by taking any other c v bit also both in the reversed record mentioned above and also in the record of "Atara Oamah" reversed to "Hamao Arata."²⁹

We will now put forward a different mode of argument to prove certain of the ideas developed above. Let us consider a c v case. For the sake of argument let us consider a specific case in which the end structure of c and the initial structure of v differ by a phase-difference of π . Suppose that c and v are so far separated that the influence of the α -phoneme is quite imperceptible, then if such a record is taken and if the same sound is reproduced artificially, what will be the result ?

While passing from c to v the change in phase of the note will be suddenly effected³⁰ ; and consequently a sudden diminution in intensity will be followed even though the pitch may remain constant. As a result of the sudden diminution of the intensity a momentary pause will be noticed following a rapid increase in inten-

²⁸ We use the international phonetic script only as far as possible in this paper.

²⁹ Here we have thought it expedient not to adhere to the method of international phonetic transcription.

³⁰ H. HARTRIDGE 'A vindication of the Resonance hypothesis of audition' *British Journal of Psychology*, Vol. 12, 1921-22, p. 145.

sity. Suppose the time of utterance of the consonant is very small when compared to the time of utterance of the vowel; also if such a consonant and a vowel have a phase difference as indicated above and if they are so far separated that the α -phoneme has no perceptible influence, the point at which c and v combine will correspond to a momentary pause because of the sudden phase difference of π . (1) Since even naturally the time of utterance of the c is very short, and (2) even in that short time of utterance a part of it falls in the *pause region* (3) and since after the momentary pause a set of strong vibrations occur, it is but natural that when such c and v are uttered with no perceptible α -phoneme influence the sound of c may not be heard at all when the whole bit of c and v is reproduced. This may be the possible reason why "when k-part and u-part of the curve are separated more than 0.3 sec. k sound becomes no longer perceptible and u sound alone is heard." It is evident from this fact that the Japanese ear will be able to recognise the influence of the α -phoneme if the interval between c and v is less than 0.3 sec. Then the next question should be—What is the function of the α -phoneme as regards phase change? It will make the phase change very smooth, bringing about only either a slightly sharp or a slightly flat change in the sounds. Even this change will be imperceptible because of the very gradualness of the change.

Once again considering TANAKADATE'S reversed record let us take again *ma* in the two cases. Let us suppose as before the existence of two different α_1 and α_2 . They occur under identical conditions. Since α_1 and α_2 are assumed to be different the change in phase brought about will also be different. No doubt in each case the change will be gradual. But the gradual changes in each of the two cases will be different; that means even though the sound changes are gradual in each case taken by itself yet the differences in the sound-change in the two cases will be marked. If that is so a reversed record cannot give a *correct recitation*. But it is actually observed that the reversed record gives a correct recitation; that means the phase-changes are identical; that means the agencies which bring about such phase-changes are identical i.e. $\alpha_1 \equiv \alpha_2$.

Thus it may be noted that many of the unexplained facts in TANAKADATE'S important paper can be explained by the theory developed here.

Let us once again turn our attention to the nature of vowels. It has been already pointed out that GEMELLI and PASTORI speak of 'the specific character' of a vowel. It is not, however, quite well stated what exactly are the factors that go to make up the 'specific character' of a vowel.

But it is easily seen that even for the same person the nature of a particular vowel uttered in one circumstance is not identical with that of the same vowel uttered by the same person under a different circumstance. Bearing this in mind, we can speak of a "general character" or simply 'character' and a 'specific character' with regard to any speech element.

If we consider that the quality of a tone depends on the exact nature of the vibrations of the vocal cords—which vibrations are carried on with the outcoming air—and also upon the resonant cavities where these vibrations undergo a modification—for example some partials being encouraged and other partials being relatively discouraged—then we may as well say that the difference that exists between the same

vowels uttered under different circumstances, is due to the fact that the nature of the vibrations of the vocal cords are only similar, but not identical in the two utterances—for example in one case the vibrations may be strong and in the other case the vibrations may be weak but they are almost similar in both the cases—as a result of which certain partials are encouraged and certain other partials are discouraged. Hence it may be stated that the general similarity in vibrations constitutes the *general character* or simply the *character* of the vowel, and the exact nature of the profile including the minor differences constitute the *specific character* of the particular vowel under a particular circumstance.⁸¹

Figs. 4, 5, 10 and 11 are those of the utterances of the same person. Consider the structure representing *a* in *adai* in fig. 4, the same *a* in fig. 5 the *a* after *y* in fig. 10 and *a* after *r* in fig. 11. As already pointed out the structures for all of them are very similar. This structural similarity constitutes the character of *a* for the particular person. As is obvious from the above records, no two structures representing *a* are identical. The vast difference will become manifest if the equations for any two structures are given.

In the following pages we show the application of the Fourier analysis of our curves. In spite of the inherent defects of such an analysis, we contend that even though absolute values cannot be obtained from such an analysis, yet the method can usefully be adopted where relative values of appreciable accuracy only are needed.

The general theorem of Fourier for the expansion of an arbitrary function of a variable *x* may be given as

$$f(x) = a_0 + a_1 \cos x + a_2 \cos 2x + a_3 \cos 3x + \dots \\ + b_1 \sin x + b_2 \sin 2x + b_3 \sin 3x \\ \text{where } a_0, a_1, a_2, \dots, b_1, b_2,$$

\dots are constants. If *u* is a known function of *x*, the calculation of a Fourier series of a periodic curve may be done from the values of *u* corresponding to a number of equidistant ordinates distributed over the period. In the 12 ordinate scheme of RUNGE⁸² the corresponding ordinates are presented by *u*, *u*₁, *u*₂, *u*₃, *u*₄, ... *u*₁₁. Hence the Fourier series representing *u* consists of 12 terms thus :

$$u = a_0 + a_1 \cos x + a_2 \cos 2x + \dots + a_6 \cos 6x \\ + b_1 \sin x + b_2 \sin 2x + \dots + b_5 \sin 5x.$$

An illustrative computation of the method of calculation of the Fourier series of any periodic curve is given below.⁸³

Ordinates	<i>u</i> ₀	<i>u</i> ₁	<i>u</i> ₂	<i>u</i> ₃	<i>u</i> ₄	<i>u</i> ₅					
		<i>u</i> ₁₁	<i>u</i> ₁₀	<i>u</i> ₉	<i>u</i> ₈	<i>u</i> ₇	<i>u</i> ₆				
Differences		<i>w</i> ₁	<i>w</i> ₂	<i>w</i> ₃	<i>w</i> ₄	<i>w</i> ₅					
Sums	<i>v</i> ₀	<i>v</i> ₁	<i>v</i> ₂	<i>v</i> ₃	<i>v</i> ₄	<i>v</i> ₅	<i>v</i> ₆				

⁸¹ GEMELLI and PASTORI observe that in vowels the wealth of the partial tones is more important than of the amplitude of the fundamental tone. *Arch., Néer., Phonétique Expérimentale*, 10, 1934, p. 6.

⁸² G. A. CARSE and G. SHEARER, *A Course in Fourier's Analysis and Periodogram Analysis for the Mathematical Laboratory*, Edinburgh Mathematical tracts, No. 4, 1915, pp. 17 ff.

⁸³ *Ibid*, p. 20.

	w_1	w_2	w_3	
	w_5	w_4		
Sums	r_1	r_2	r_3	
Differences	s_1	s_2		
	v_0	v_1	v_2	v_3
	v_6	v_5	v_4	
Sums	p_0	p_1	p_2	p_3
Differences	q_0	q_1	q_2	
	r_1	q_0		
	r_3	q_2		
Differences	t_1	t_2		
	p_0	p_1		
	p_2	p_3		
Sums	l_0	l_1		

	Sine terms			Cosine terms			
Sin 30°	r_1			q_2	$-p_2$	p_1	
Sin 60°		r_2	s_1		q_1		
Sin 90°	r_3			t_1	q_0	p_0	$-p_3$
						t_2	l_0
							l_1
Sum of first column	...	...	...	...	...	...	...
Sum of 2nd column	...	...	...	...	...	...	...
Sum	...(=6 b_1)	...(=6 b_2)	...(=6 b_3)	...(=6 a_1)	...(=6 a_2)	...(=6 a_3)	...(=12 a_0)
Difference	...(=6 b_5)	...(=6 b_4)	...	...(=6 a_5)	...(=6 a_4)	...	...(=12 a_6)

Knowing the values of the constants, the Fourier-series representing the 12 ordinates of the periodic curve may be written in the form

$$u = a_1 + a_1 \cos \theta + a_2 \cos 2 \theta + a_3 \cos 3 \theta + \dots + b_1 \cos \theta + b_3 \cos 5 \theta$$

Following RUNGE'S method, the Fourier-series of the periodic curve of a in $a\delta ai$ (fig. 4) can be calculated as follows from the reading for the 12 ordinates obtained experimentally. The twelve ordinates are -8.32 , $+0.53$, $+0.14$, -3.76 , -1.25 , $+1.76$, $+3.53$, $+3.03$, -1.24 , $+5.03$, $+5.85$, $+2.73$ expressed in millimeters.

Ordinates (u)	- 8.32	+ 0.53	+ 0.14	- 3.76	- 1.25	+ 1.76	
		+ 2.73	+ 5.85	+ 5.03	- 1.24	+ 3.03	+ 3.53
Differences (w)		- 2.20	- 5.71	- 8.79	- 0.01	- 1.27	
Sums (v)	- 8.32	+ 3.26	+ 5.99	+ 1.27	- 2.49	+ 4.79	+ 3.53

	- 2.20	- 5.71	- 8.79	
	- 1.27	- 0.01		
Sums (r)	- 3.47	- 5.72	- 8.79	
Differences (s)	- 0.93	- 5.70		
	- 8.32	+ 3.26	+ 5.99	+ 1.27
	+ 3.53	+ 4.79	- 2.49	
Sums (p)	- 4.79	+ 8.05	+ 3.50	+ 1.27
Differences (q)	- 11.55	- 1.53	+ 8.48	
	- 3.47	- 11.85		
	- 8.79	+ 8.48		
Differences (t)	+ 5.32	- 20.33		
	- 4.79	+ 8.06		
	+ 3.50	+ 1.27		
Sums (l)	- 1.29	+ 9.29		

	Sine terms			Cosine terms			
0.5	- 1.74			+ 4.24	- 1.75		
0.866	- 4.97	- 0.81,		- 1.31	+ 4.03		
1.0	- 8.79	- 4.95	+ 5.32	- 11.85	- 4.79	- 20.33	- 1.29, + 9.23
				- 1.27			
Sum of the first Column	- 10.53	- 0.81		- 7.61	- 6.54		- 1.29
Sum of the second Column	- 4.97	- 4.94		- 1.31	+ 2.76		+ 9.23
Sum	- 15.50	- 5.75	+ 5.32	- 8.92	- 3.78	- 20.33	+ 7.94
	= 6 b_1	= 6 b_2	= 6 b_3	= 6 a_1	= 6 a_2	= 6 a_3	= 12 a_0
Difference	- 5.56	+ 4.13		- 6.30	- 9.30		- 10.52
	= 6 b_5	= 6 b_4		= 6 a_5	= 6 a_4		= 12 a_6

Result :

$$\begin{aligned}
 u = & 0.67 + 1.47 \cos \theta - 0.65 \cos 2\theta - 3.39 \cos 3\theta \\
 & - 1.55 \cos 4\theta - 1.05 \cos 5\theta - 0.88 \cos 6\theta \\
 & - 2.58 \sin \theta - 0.96 \sin 2\theta + 0.89 \sin 3\theta \\
 & + 0.69 \sin 4\theta - 0.93 \sin 5\theta.
 \end{aligned}$$

Similarly the Fourier series representing the periodic curve of a after y in $a \beta' a$ $ya m$ in fig. 10 may be calculated as follows, from the readings for the 12 equidistant ordinates obtained experimentally. The twelve ordinates are—2.65 ; —0.77 ; + 2.53 ; + 2.53 ; —0.62 ; —0.69 ; + 1.31 ; + 1.25 ; —1.00 ; —0.83 ; + 1.60 ; + 1.89, all expressed in millimeters.

Arranging the ordinates

	— 2.65	— 0.77	+ 2.53	+ 2.53	— 0.62	— 0.69	
		+ 1.89	+ 1.60	— 0.83	— 1.00	+ 1.25	+ 1.37
Differences (w)		— 2.66	+ 0.93	+ 3.36	+ 0.38	— 1.94	
Sums (v)	— 2.65	+ 1.12	+ 4.13	+ 1.70	— 1.62	+ 0.56	+ 1.31
		— 2.66	+ 0.93	+ 3.36			
		— 1.94	+ 0.38				
Sums (r)		— 4.60	+ 1.31	+ 3.36			
Differences (s)		— 0.72	+ 0.55				
		— 2.65	+ 1.12	+ 4.13	+ 1.70		
		+ 1.31	+ 0.56	— 1.62			
Sums (p)		— 1.34	+ 1.68	+ 2.51	+ 1.70		
Differences (q)		— 3.96	+ 0.56	+ 5.75			
		— 4.60	— 3.96				
		+ 3.36	+ 5.75				
Differences (t)		— 7.96	— 9.71				
		— 1.34	+ 1.68				
		+ 2.51	+ 1.70				
Sums (l)		+ 1.17	+ 3.38				

	Sine Terms			cosine terms			
0.5	— 2.30			+ 2.88	— 1.26, + 0.84		
0.866	+ 1.13	— 0.62; + 0.48	— 6.89	+ 0.48			+ 1.01, + 2.93
1.0	+ 3.36			— 3.96	— 1.34; — 1.70	— 9.71	
Sum of first Column	+ 1.06	— 0.62		— 1.08	— 2.60		+ 1.01
Sum of 2nd „	+ 1.13	+ 0.48		+ 0.48	— 0.86		+ 2.93
Sum	+ 2.19 = 6 b_1	— 0.14 = 6 b_2	— 6.89 = 6 b_3	— 0.60 = 6 a_1	— 3.46 = 6 a_2	— 9.71 = 6 a_3	+ 3.94 = 12 a_0
Diff.	— 0.07 = 6 b_5	— 1.10 = 6 b_4		— 1.56 = 6 a_5	— 1.74 = 6 a_4		— 1.92 = 12 a_6

Result

$$\begin{aligned}
 u = & + 0.33 - 0.10 \cos \theta - 0.58 \cos 2 \theta - 1.54 \cos 3 \theta \\
 & - 0.29 \cos 4 \theta - 0.26 \cos 5 \theta - 0.16 \cos 6 \theta \\
 & + 0.37 \sin \theta - 0.02 \sin 2 \theta - 1.15 \sin 3 \theta \\
 & - 0.20 \sin 4 \theta - 0.01 \sin 5 \theta.
 \end{aligned}$$

The two final expressions show more clearly the difference in structure of the same vowel *a* under two different circumstances. However, the similarity in structure is quite noticeable. As already stated, the similarity in structure is the characteristic of *a* for the person.

Let us now proceed to investigate the factors that determine the 'specific character' of an element under defined circumstances.

A number of factors seem to determine the specific character of a speech-element. Let us consider the case of a vowel occurring under different surroundings. In such a case the exact nature of the vowel is of prime importance. That exact nature determines the exact wave structure in the speech record. Some of the other factors are the pitch of the utterance of the vowel as given by the frequency of the waves; the intrinsic strength of the vowel as given by the amplitude (*a*) of the waves; the force with which the vowel is uttered i.e. the intensity of utterance which is proportional to the square of the total amplitude (*A* = the distance from the base line to the top); and the loudness of utterance which is proportional to the logarithm of intensity.

Let us first consider the last factors mentioned here taking particular vowels. Since it is impossible to make two utterances of the same sound, word or sentence in an identical manner—identical in every respect³⁴ in a study of a vowel the following method is suggested: A particular vowel under particular surroundings in a speech record should be studied; then the same vowel under the same surroundings in a speech record of another utterance should be studied; then the same vowel occurring under different surroundings must be studied. Thus a minimum of at least three comparative studies is essential.

As an example the study of *a* in *aðai* in fig. 4, of *a* in *aðai* in fig. 5 and of *a* after *y* in *aβ'ayam* in fig. 10 may be taken. For a study of the above indicated factors four graphs have to be drawn.

(1) *Melody plot.* A melody plot is a graph showing the frequency variations of successive wave groups. A study of the melody plot gives the range over which the pitch of the utterance is maintained and also the variations of pitch even in that range. Following the method of Prof. E. W. SCRIPTURE such a graph is drawn thus. First the wave lengths of successive waves or wave groups are found. The period of each wave or wave group is calculated by multiplying the wave length by the time equation of the record. The reciprocal of the period gives the frequency of the wave. The calculations may be tabulated as follows:

wave length in 0.1 m.m.	Period	Frequency
----------------------------	--------	-----------

³⁴ This is in consonance with the basic concessive assumption of science: no two events are exactly alike. TWADDELL, *On Defining the Phoneme*, p. 37. Long., Monograph No. 16, 1935.

To draw a melody curve some time equation is assigned to the x-axis of the plot. For the sake of uniformity certain relations may be adopted as standard ones, for example for x-axis 1 m. m. = 0.001 sec. and for y-axis 1 m. m. = 1 vibration. This scale is used in all our melody plots. An ordinate to represent the frequency is erected at the beginning of each wave. To obtain the wave lengths the period is divided by the number of seconds per millimeter for the x-axis of the plot.

Melody plots

fig. 26

fig. 27

fig. 28

For example the melody curve from the readings (see below) for the vowel in fig. 4 is shown in fig. 26. At zero a dot is marked 45 m. m. above the x-axis. In order to find out the beginning of the second wave, a distance equal to the length of the first wave is laid off along the x-axis. The period or wave length in seconds for the first wave is 0.02240 sec. For scale of 1 m. m. = 0.001 sec. this gives a wave length of 22.4 m. m. The distance 22.4 m. m. is laid off along the x-axis to find the beginning of the second wave. Now a dot is marked at 24 m. m. above the x-axis.

The length of the second wave (42 m. m.) is laid off to find the beginning of the third wave. Here a dot is marked 34 m. m. above the x-axis. All the dots are then joined by a smooth curve which represents a melody plot.

AMPLITUDE PLOTS.

Fig. 29, Fig. 30, Fig. 31.

(2) *Amplitude plots*: This is a graph showing the variations of the structural amplitude of successive waves or wave groups. A study of the amplitude plot gives the nature of the intrinsic strength of the vibrations producing the sound. In such a graph the x-axis represents the wavelengths in time (as before) and the y-axis their amplitude. Taking the same time equation for the x-axis (i.e. 1 m. m. = 0.001 sec. at the beginning of each wave a dot is plotted vertically to represent the amplitude. A curve formed by joining all such dots represents an amplitude plot.

INTENSITY PLOTS

Fig. 32, Fig. 33, Fig. 34.

Intensity Plot: The intensity of a particular speech sound depends (1) on the nature of the intrinsic strength of the vibrations and (2) on the respiratory force with which the vibrations are let out. In a speech record, the distance from the base line to the maximum point in the sentence may be taken to represent the total amplitude (A) of the sound emitted at the particular instance. The intensity of the sound is proportional to the square of this amplitude. A graph showing the variations of the intensity of successive waves or wave groups constitutes an intensity plot. With the same time equation for the x-axis, the square of the amplitude (A^2) is represented along the y-axis.

LOUDNESS PLOTS

Fig. 35, Fig. 36, Fig. 37.

Loudness plot: The loudness of a particular sound is proportional to the logarithm of intensity. A graph showing the variations of $\log_{10} A^2$ of successive waves or wave-groups constitutes a loudness plot. With the same time equation for the x-axis, $\log_{10} A^2$ are plotted along the y-axis.

Consider the melody plots [figs. 26, 27 and 28] of 'a's referred to above in figs. 4, 5 and 10. As already indicated in a study of such melody curves two factors have to be taken into consideration : (1) the general range of the frequency in which the

Table of readings for the various graphs for the vowel a

Record reference.	Wave-length of <i>a</i> in 0/m.m.	Period in sec.	Frequency.	Structural Amplitude of <i>a</i> in 0/m.m.	Total amplitude of <i>a</i> in m.m.	A ²	log ₁₀ A ²
Fig. 4	44.8	0.02240	45	38	12.44	155	2.1895
	84.3	0.04215	24	38	14.30	205	2.3107
	63.2	0.03160	32	39	16.19	262	2.4183
Fig 5	61.9	0.03095	32	34	15.39	237	2.3744
	60.4	0.03020	33	20	15.64	245	2.3884
	51.1	0.02555	39	20	15.40	237	2.3750
Fig. 10	68.0	0.02040	49	34	71.00	5042	3.7026
	47.2	0.01416	71	34	71.20	5058	3.7046
	45.8	0.1374	73	29	70.00	4900	3.6902
	46.0	0.01380	72	33	70.30	4943	3.6940
	46.9	0.01407	71	24	68.73	4725	3.6744

utterance is made—this is given by the mean value of the individual frequencies—and (2) the deviations of frequency in that range. As regards the pitch of utterance there are two factors that affect the 'specific character' of a speech element. The frequency range of *a* in *aδai* (fig. 4) is $(45 + 24 + 32/3 =) 34$ and that of *a* in *aδai* in fig. 5 is $(32 + 33 + 39/3 =) 35$. We thus note the remarkable coincidence in the frequency range. In the first case the melody curve [fig 26] descends down and then ascends up, whereas in the second case the melody curve [fig. 27] shows a very gradual ascent. These represent the deviations even in the same frequency range. As long as the frequency range is the same, no outward difference in pitch of the two 'a's will be perceptible. Consider the melody plot [fig. 28] of *a* in fig. 10. Its frequency range is 67 $(= 49 + 71 + 73 + 72 + 71/5)$. Evidently the frequency range is far higher than those of the 'a's in records 1 and 2. The vowel starts with a low pitch, attains a maximum, remains steady and then gradually falls. Thus we see the inner differences as regards pitch variation of the three 'a's.

Examine the amplitude plot. In the first case the mean amplitude or the amplitude range is 38 tenths of a m. m. In that range the variations, as we see are negligible i.e. the vibrations are of the same intrinsic strength throughout. In the second case the amplitude range is 25-tenths of a m.m. There is thus a fall in the amplitudes, when compared to the first case. Even in this range the amplitude suffers a

very appreciable fall at the beginning and then remains steady. That means, the vibrations which are relatively stronger at the beginning rapidly diminish in strength. The amplitude range in the third case is 31-tenths of a mm. This is midway between those of the other two 'a's. In this range the amplitudes possess a gradual fall-and-rise character. Nowhere it can be pointed out that there is abrupt rise or fall.

Let us examine the intensity plot. The intensity range is 207 in the first case, 240 in the second case and 4734 in the third case. The intensity in the third case is, as is evident, far higher than in the other two cases. In their respective ranges, the intensity plot shows a steady rise in the first case, a rise and fall in the second case, a fall-and-rise character throughout, in the third case. Thus the intensity gives an idea of the strength of the emission of each utterance

Depending on the intensity, the loudness variations are seen. In the first two cases there is no very appreciable change in loudness. In the third case the loudness is far higher and remains almost constant throughout

Thus we see the importance of the above plots in an elucidation of the 'specific character' of an element.

Let us now go into the details of the exact structure. We have to analyse the complicated structure for the vowel a into its harmonic constituents. Even though a harmonic analysis of a vibration cannot show how exactly the vibration was produced, it can certainly show how such a vibration might have been produced. Our object is to study the nature of the vowel a from the beginning to the end (as far as possible) and not to study merely one of a number of wave groups. Hence the whole structure of the particular speech sound is subjected to harmonic analysis wherefrom the harmonic constituents as well as the inharmonics with their respective phase and amplitude changes can be deduced. The method of analyses adopted in the following pages is that of Prof. E. W. SCRIPTURE.³⁵

The general Fourier theorem of any periodic function of t may be expressed as :

$$y = c + a_1 \cos \frac{2\pi}{T} \cdot t + a_2 \cos \frac{2\pi}{\frac{1}{2}T} \cdot t + a_3 \cos \frac{2\pi}{\frac{1}{3}T} \cdot t + \dots + b_1 \sin \frac{2\pi}{T} \cdot t + b_2 \sin \frac{2\pi}{\frac{1}{2}T} \cdot t + b_3 \sin \frac{2\pi}{\frac{1}{3}T} \cdot t,$$

where c represents the ordinate for the mean value of the function and T is the period to be expressed. T , $\frac{1}{2}T$, $\frac{1}{3}T$ etc. are the harmonic series of periods and a_1 , a_2 , a_3 , \dots , b_1 , b_2 , b_3 \dots are the amplitudes of sinusoids of the series. Expressing the periodic function as a series of harmonic sinusoids, the above expression may be written as

$$y = c + c_1 \sin \left(\frac{2\pi}{T} \cdot t - q_1 \right) + c_2 \sin \left(\frac{2\pi}{\frac{1}{2}T} \cdot t - q_2 \right) + c_3 \sin \left(\frac{2\pi}{\frac{1}{3}T} \cdot t - q_3 \right) + \dots$$

where c represents the resultant amplitude of the partials and q their respective phases.

Then it is easily seen that

$$c = \sqrt{a^2 + b^2} \quad \text{and} \quad \tan q = -\frac{a}{b}.$$

³⁵ E. W. SCRIPTURE, *Researches in Experimental Phonetics*,

We now proceed to analyse the structure representing a in $a\delta ai$ in fig. 4 and that representing a after y in $a\beta'ayam$ in fig. 10. We have first to find out the axis of each curve. A tangential line is drawn from the highest point in the vibrations. Thirty-six ordinates are erected at equidistant intervals, the whole interval comprising the whole structure. Distances are measured from the tangential line. Distances of the successive maxima and minima from the tangential line are found. The mean value of the maxima and that of the minima are then calculated. The mean of these two gives the distance of the axis of the curve below the tangential line. By subtracting this value from the readings taken from the tangential line the amplitude at each instant is obtained. By taking 36 equidistant ordinates, we obtain 18 partials. So much partials are quite sufficient for making a general comparative study.

I. Analysis of a in $a\delta ai$ in fig. 4.

The length of the wave group is 240 tenths of a m.m. The time equation of the record is, 1 tenth of a m. and is equivalent to 0.0005 seconds. Hence the period of the wave is $0.0005 \times 240 = 0.1200$ seconds and the frequency of the wave group = 8.33. The ordinates are given in the first column of the adjacent table. They are then multiplied by cosines for the 36 schedules.

Thirty-six ordinates multiplied by the cosines :

t	1.000	0.985	0.940	0.866	0.766	0.643	0.500	0.342	0.174	0
0	- 83.20	- 81.94	- 78.20	- 72.04	- 63.72	- 53.50	- 41.60	- 28.45	- 14.47	0
1	- 21.70	- 21.37	- 20.40	- 18.79	- 16.63	- 13.95	- 10.85	- 7.42	- 3.78	0
2	- 4.20	- 4.14	- 3.95	- 3.64	- 3.22	- 2.70	- 2.10	- 1.44	- 0.73	0
3	+ 5.30	+ 5.22	+ 4.98	+ 4.59	+ 4.06	+ 3.41	+ 2.65	+ 1.81	+ 0.92	0
4	+ 9.40	+ 9.26	+ 8.84	+ 8.15	+ 7.20	+ 6.05	+ 4.70	+ 3.22	+ 1.64	0
5	+ 7.30	+ 7.19	+ 6.86	+ 6.32	+ 5.59	+ 4.69	+ 3.65	+ 2.50	+ 1.27	0
6	+ 1.40	+ 1.38	+ 1.32	+ 1.21	+ 1.07	+ 0.90	+ 0.70	+ 0.48	+ 0.24	0
7	- 3.90	- 3.84	- 3.67	- 3.38	- 2.99	- 2.51	- 1.95	- 1.33	- 0.68	0
8	- 20.60	- 20.29	- 19.36	- 17.84	- 15.78	- 13.24	- 10.30	- 7.05	- 3.58	0
9	- 37.60	- 37.03	- 35.34	- 32.56	- 28.80	- 24.17	- 18.80	- 12.86	- 6.54	0
10	- 25.70	- 25.31	- 24.15	- 22.25	- 19.68	- 16.52	- 12.85	- 8.79	- 4.47	0
11	- 16.70	- 16.44	- 15.70	- 14.46	- 12.79	- 10.74	- 8.35	- 5.71	- 2.91	0
12	- 12.50	- 12.31	- 11.76	- 10.82	- 9.57	- 8.04	- 6.25	- 4.28	- 2.18	0
13	- 2.20	- 2.17	- 2.07	- 1.91	- 1.69	- 1.42	- 1.10	- 0.75	- 0.38	0
14	+ 4.80	+ 4.73	+ 4.51	+ 4.16	+ 3.68	+ 3.09	+ 2.40	+ 1.64	+ 0.84	0
15	+ 17.60	+ 17.34	+ 16.54	+ 15.24	+ 13.48	+ 11.32	+ 8.80	+ 6.02	+ 3.06	0
16	+ 33.00	+ 32.50	+ 31.01	+ 28.25	+ 25.27	+ 21.21	+ 16.50	+ 11.28	+ 5.74	0
17	+ 36.30	+ 35.76	+ 34.12	+ 31.44	+ 27.81	+ 23.34	+ 18.15	+ 12.42	+ 6.32	0
18	+ 35.30	+ 34.77	+ 33.18	+ 30.57	+ 27.05	+ 22.70	+ 17.65	+ 12.07	+ 6.14	0

THE UTTERANCE-CONTINUUM AND THE α -PHONEME

t	1:00	0-985	0-940	0-866	0-716	0-643	0-500	0-342	0-174	0
19	+ 34.10	+ 33.53	+ 32.06	+ 29.54	+ 26.12	+ 21.93	+ 17.05	+ 11.65	+ 5.93	0
20	+ 32.10	+ 31.61	+ 30.17	+ 27.80	+ 24.59	+ 20.64	+ 16.02	+ 10.97	+ 5.59	0
21	+ 30.30	+ 29.85	+ 28.47	+ 26.36	+ 23.20	+ 19.48	+ 15.15	+ 10.36	+ 5.27	0
22	+ 0.30	+ 0.295	+ 0.282	+ 0.26	+ 0.23	+ 0.18	+ 0.15	+ 0.10	+ 0.05	0
23	- 12.40	- 12.21	- 11.92	- 10.74	- 9.50	- 7.97	- 6.20	- 4.24	- 2.16	0
24	- 12.40	- 12.21	- 11.92	- 10.74	- 9.50	- 7.97	- 6.20	- 4.24	- 2.16	0
25	+ 6.60	+ 6.50	+ 6.20	+ 5.72	+ 5.06	+ 4.24	+ 3.30	+ 2.26	+ 1.15	0
26	+ 38.10	+ 37.53	+ 35.81	+ 32.99	+ 29.18	+ 24.50	+ 19.05	+ 13.03	+ 6.63	0
27	+ 50.30	+ 49.55	+ 47.28	+ 43.56	+ 38.53	+ 32.34	+ 25.16	+ 17.20	+ 8.75	0
28	+ 62.40	+ 61.46	+ 58.65	+ 54.04	+ 47.79	+ 40.13	+ 31.20	+ 21.34	+ 10.86	0
29	+ 64.40	+ 63.43	+ 60.53	+ 55.77	+ 49.33	+ 41.41	+ 32.20	+ 22.03	+ 11.20	0
30	+ 58.50	+ 57.62	+ 54.99	+ 50.66	+ 44.81	+ 37.61	+ 29.25	+ 20.01	+ 10.07	0
31	+ 56.00	+ 55.16	+ 52.60	+ 48.50	+ 42.89	+ 36.00	+ 28.00	+ 19.15	+ 9.74	0
32	+ 40.30	+ 39.69	+ 37.87	+ 34.89	+ 30.87	+ 25.91	+ 20.15	+ 13.78	+ 6.71	0
33	+ 27.30	+ 26.89	+ 25.66	+ 23.64	+ 20.91	+ 17.26	+ 13.66	+ 9.34	+ 4.76	0
34	+ 9.20	+ 9.06	+ 8.65	+ 7.97	+ 7.05	+ 5.92	+ 4.59	+ 3.14	+ 1.60	0
35	- 12.40	- 12.21	- 11.92	- 10.74	- 9.50	- 7.97	- 6.20	- 4.24	- 2.16	0

The 36 schedules with indications of + and — are now applied. Those for which the sign of the pattern coincides with that of the table are taken as plus, the others as minus. For example let us apply the schedule for a_1 . The values for which the signs coincide are 4.59, 7.20, 4.69, 0.70, 4.47, 5.71, 6.25, 1.42, 7.97, 6.20, 10.46, 22.03, 29.25, 36.00, 30.87, 23.64, 8.65;

and those for which they differ are 83.20, 21.37, 3.95, 1.33, 3.58, 3.68, 15.24, 31.01, 35.76, 35.30, 33.59, 30.17, 26.36, 0.23, 2.26, 6.63, 12.21.

Taking the former as positive and the latter as negative we obtain a resultant of — 135.37.

Divided by half the number of ordinates used, namely by 18, this gives — 7.52 as the value for a_1 ; using the schedule for b_1 in the same way we obtain — 24.30. The amplitude of the first partial is therefore $c_1 = \sqrt{a^2 + b^2} = 25.44$ since $-\frac{a}{b} = \tan q = -0.3241$, the phase of the component $q_1 = 162^\circ$. It may be noted that since c is always positive $\sin q$ must have the opposite sign to that of 'a'. If θ is the angle from the table of tangents corresponding to the value of $\frac{a}{b}$ the value of q is follows:

a	$-\frac{a}{b}$	q
—	—	$180 - \theta$
—	+	θ
+	—	$360 - \theta$
+	+	$180 + \theta$

If r^s and $r^{(.1\text{ m.m.})}$ represent the phase distances in seconds and tenth of millimeters respectively they may be calculated from the relation.

$$\gamma^s = \frac{q}{2\pi} \cdot T \text{ and } \gamma^{(.1\text{ m.m.})} = \frac{q}{2\pi} \cdot \lambda$$

where T is the period of vibration in seconds, and λ the wave length in .1 m.m. For example when $q = 162^\circ$, $T = 0.1200$ seconds and $\lambda = 240$ tenths of millimeters.

$$\gamma^{(.1\text{ m.m.})} = \frac{q}{2\pi} \cdot \lambda = \frac{162}{360} \times 240 = 108.$$

$$\gamma^s = \frac{q}{2\pi} \cdot T = \frac{162}{360} \times 0.1200 = 0.054.$$

In the adjacent table, τ gives the period of the harmonic, μ its frequency, λ its wave length, a and b the sine and cosine elements, c the resultant amplitude, q the phase, γ^s and $\gamma^{(.1\text{ m.m.})}$ the phase distances in seconds and tenths of millimeters respectively.

Table of Results of Simple Harmonic Analysis.

	T in seconds	μ	λ in .1 m.m	a	b	c	q	r^s	$r^{(.1\text{ m.m.})}$
1	0.1200	8	240	- 7.52	- 24.30	25.44	162°	0.0540	108
2	0.0600	17	120	- 2.17	- 5.48	5.89	158	0.0264	52.7
3	0.0400	25	80	- 26.69	+ 9.86	28.45	70	0.0078	15.6
4	0.0300	33	60	- 5.52	+ 4.76	7.29	49	0.0040	8.2
5	0.0240	42	48	- 5.33	- 5.34	7.98	138	0.0092	18.4
6	0.0200	50	40	- 7.11	- 0.10	7.11	35	0.0020	4.0
7	0.0170	58	34	- 0.91	- 3.00	3.14	17	0.0001	1.6
8	0.0150	67	30	- 6.18	- 2.81	6.79	114	0.0048	9.5
9	0.0130	75	27	- 3.99	- 3.77	5.38	134	0.0048	10.1
10	0.0120	83	24	- 2.70	- 0.74	2.80	105	0.0035	3.5
11	0.0110	92	22	- 3.85	+ 0.93	3.96	67	0.0024	4.6
12	0.0100	100	20	- 4.26	+ 0.06	4.26	89	0.0020	4.9
13	0.0090	108	18	- 4.31	- 0.56	4.35	97	0.0023	4.9
14	0.0086	117	17	- 4.65	+ 0.14	4.66	88	0.0021	4.2
15	0.0080	125	16	- 2.32	- 0.74	2.44	108	0.0024	4.8
16	0.0075	133	15	- 3.77	- 0.41	3.81	96	0.0018	4.0
17	0.0070	142	14	- 2.85	- 1.26	3.12	115	0.0020	4.5
18	0.0067	150	13	- 3.62	0	3.62	...	...	...

The harmonic plot is given in fig. 38.

Fig. 38
(Harmonic Plot)

Fig. 39

(Inharmonic Plot)

Fig. 40
(r^s)

Fig. 41
(λ 1 m. m.)

Two graphs are drawn showing the variations of r^2 and $r^2 \cdot 1 \text{ m.m.}$ with the partials. The graphs are shown in figs. 40 and 41.

We have now to calculate the inharmonics assuming that there are as many component tones as there are prominent harmonics. Minima are observed at the 2nd, 7th, 10th, and 15th partials. The amplitude for each of these is to be divided proportionally between its two neighbours. For example 5.89 is to be divided in the relation of 25.44 to 28.45 (i.e.) into 2.78 and 3.11. Similarly dividing we get

$$5.89 = 2.78 + 3.11$$

$$3.14 = 1.61 + 1.53$$

$$2.80 = 1.61 + 1.19$$

$$2.44 = 1.34 + 1.10$$

For the group around the first maximum we have

$$\frac{(1 \times 25.44) + (2 \times 2.78)}{25.44 + 2.78} = 1.098.$$

i.e., the first component tone has the ordinal number 1.098 in the series of partials and its frequency is 1.098 times the fundamental or $1.098 \times 8.33 = 9.152$. For the second component, we find

$$\frac{(2 \times 3.11) + (3 \times 28.45) + (4 \times 7.29) + (5 \times 7.98) + (6 \times 7.11) + (7 \times 1.61)}{3.11 + 28.45 + 7.29 + 7.98 + 7.11 + 1.61} = 3.863$$

$$\text{Its frequency} = 3.863 \times 8.33 = 32.11$$

In a similar manner we find that the third component has a weighted mean of 8.459 giving a frequency of 70.46, the fourth component has a weighted mean of 12.58 giving a frequency of 104.7 and the fifth component has a weighted mean of 25.98 giving a frequency of 216.4. We have then to find out the amplitude of the inharmonic. This is done by the rule suggested by Prof. E. W. SCRIPTURE³⁶ by taking $\frac{1}{3}$ times the amplitude of the nearest strongest harmonic. The results are tabulated as follows.

Component	Frequency	Ratio	Amplitude in .1 m. m.
I	9	1.098	37.3
II	32	3.863	10.6
III	70	8.459	9.0
IV	105	12.580	6.2
V	216	25.98	5.1

The inharmonic plot is shown in fig. 39.

II Analysis of a after y in $a \beta' ayam$ in fig. 10.

The length of the wave groups is 136 tenths of m.m. The time equation of the record is given by, one tenth of a m.m. = 0.0003 seconds. Hence the period of the wave group = $0.0003 \times 136 = 0.0408$ seconds, and its frequency = 24.15.

The ordinates are given in the first column of the adjacent table. They are then multiplied by the cosines for the 36 schedules :

³⁶ *Ibid.*, p. 82.

Thirty six ordinates multiplied by the cosines.

t	1-000	0-985	0-940	0-866	0-766	0-643	0-500	0-342	0-174	0
0	- 26-53	- 26-13	- 24-94	- 22-97	- 20-32	- 17-06	- 13-26	- 9-07	- 4-62	0
1	- 24-53	- 24-16	- 23-05	- 21-24	- 18-79	- 15-77	- 12-27	- 8-39	- 4-27	0
2	- 14-43	- 14-21	- 13-56	- 12-49	- 11-05	- 9-28	- 7-22	- 4-94	- 2-51	0
3	- 7-73	- 7-61	- 7-27	- 6-69	- 5-92	- 4-97	- 3-87	- 2-64	- 1-35	0
4	+ 7-47	+ 7-36	+ 7-02	+ 6-47	+ 5-72	+ 4-80	+ 3-74	+ 2-56	+ 1-30	0
5	+ 22-87	+ 22-53	+ 21-50	+ 19-81	+ 17-52	+ 14-71	+ 11-44	+ 7-82	+ 3-98	0
6	+ 25-27	+ 24-89	+ 23-75	+ 21-89	+ 19-36	+ 16-25	+ 12-64	+ 8-64	+ 4-40	0
7	+ 25-27	+ 24-89	+ 23-75	+ 21-89	+ 19-36	+ 16-25	+ 12-64	+ 8-64	+ 4-40	0
8	+ 25-27	+ 24-89	+ 23-75	+ 21-89	+ 19-36	+ 16-25	+ 12-64	+ 8-64	+ 4-40	0
9	+ 25-27	+ 24-89	+ 23-75	+ 21-89	+ 19-36	+ 16-25	+ 12-64	+ 8-64	+ 4-40	0
10	+ 24-07	+ 23-70	+ 22-62	+ 20-84	+ 18-44	+ 15-83	+ 12-03	+ 8-23	+ 4-18	0
11	+ 12-17	+ 11-99	+ 11-44	+ 10-54	+ 9-32	+ 7-82	+ 6-08	+ 4-16	+ 2-12	0
12	- 6-23	- 6-14	- 5-86	- 5-40	- 4-77	- 4-01	- 3-12	- 2-13	- 1-08	0
13	- 13-73	- 13-52	- 12-90	- 11-90	- 10-52	- 10-52	- 8-83	- 6-87	- 2-39	0
14	- 15-03	- 14-80	- 14-13	- 13-01	- 11-51	- 9-663	- 7-52	- 5-14	- 2-61	0
15	- 6-93	- 6-83	- 6-51	- 6-00	- 5-31	- 4-46	- 3-47	- 2-37	- 1-21	0
16	+ 2-07	+ 2-04	+ 1-95	+ 1-79	+ 1-59	+ 1-33	+ 1-04	+ 0-71	+ 0-36	0
17	+ 7-17	+ 7-06	+ 6-74	+ 6-21	+ 5-24	+ 4-61	+ 3-59	+ 2-45	+ 1-25	0
18	+ 13-07	+ 12-87	+ 12-28	+ 11-32	+ 10-01	+ 8-40	+ 6-53	+ 4-47	+ 2-27	0
19	+ 14-47	+ 14-25	+ 13-60	+ 12-53	+ 11-09	+ 9-31	+ 7-24	+ 4-95	+ 2-52	0
20	+ 12-47	+ 12-28	+ 11-71	+ 10-80	+ 9-55	+ 8-02	+ 6-23	+ 4-26	+ 2-17	0
21	+ 12-47	+ 12-28	+ 11-71	+ 10-80	+ 9-55	+ 8-02	+ 6-23	+ 4-26	+ 2-17	0
22	+ 9-97	+ 9-82	+ 9-37	+ 8-63	+ 7-64	+ 6-41	+ 4-99	+ 3-41	+ 1-74	0
23	+ 7-97	+ 7-85	+ 7-49	+ 6-90	+ 6-11	+ 5-13	+ 3-99	+ 2-73	+ 1-39	0
24	- 10-03	- 9-88	- 9-43	- 8-68	- 7-68	- 6-45	- 5-01	- 3-43	- 1-79	0
25	- 21-53	- 21-20	- 20-23	- 18-64	- 16-49	- 13-85	- 10-76	- 7-36	- 3-83	0
26	- 17-83	- 17-56	- 16-76	- 15-44	- 13-66	- 11-47	- 8-92	- 6-10	- 3-17	0
27	- 8-33	- 8-20	- 7-83	- 7-21	- 6-38	- 5-36	- 4-17	- 2-85	- 1-48	0
28	+ 5-97	+ 5-88	+ 5-61	+ 5-17	+ 4-57	+ 3-84	+ 2-99	+ 2-01	+ 1-06	0
29	+ 10-97	+ 10-80	+ 10-30	+ 9-50	+ 8-40	+ 7-05	+ 5-48	+ 3-75	+ 1-91	0
30	+ 15-97	+ 15-73	+ 15-02	+ 13-83	+ 12-24	+ 10-27	+ 7-99	+ 5-46	+ 2-78	0
31	+ 18-87	+ 18-59	+ 17-74	+ 16-34	+ 14-45	+ 12-13	+ 9-44	+ 6-45	+ 3-28	0
32	+ 18-87	+ 18-59	+ 17-74	+ 16-34	+ 14-45	+ 12-13	+ 9-44	+ 6-45	+ 3-28	0
33	+ 18-87	+ 18-59	+ 17-74	+ 16-34	+ 14-45	+ 12-13	+ 9-44	+ 6-45	+ 3-28	0
34	+ 8-17	+ 8-05	+ 7-68	+ 7-07	+ 6-26	+ 5-25	+ 4-09	+ 2-79	+ 1-42	0
35	- 15-03	- 14-80	- 14-13	- 13-01	- 11-51	- 9-66	- 7-52	- 5-14	- 2-61	0

Applying the 36 schedules we obtain the following table of results, the symbols having the same meaning as before.
Table of Results of Simple Harmonic Analysis.

	τ in seconds	μ	λ in/m.m.	a	b	c	q	r^2	τ (1 m.m.)
1	0.0408	24	136	- 0.53	+ 4.23	4.26	7.	0.0008	2.6
2	0.0204	48	68	- 4.77	+ 0.34	4.78	86	0.0049	16.3
3	0.0136	72	45	- 14.95	- 12.80	19.69	130½	0.0049	16.3
4	0.0102	97	34	- 2.69	+ 0.18	2.10	86	0.0024	8.1
5	0.0082	121	27	- 1.80	+ 0.81	1.97	66	0.0015	5.0
6	0.0068	145	23	- 1.95	- 4.60	5.00	157	0.0030	10.0
7	0.0058	169	19	- 1.01	+ 1.03	1.04	44½	0.0007	2.3
8	0.0051	193	17	- 0.18	+ 3.10	3.11	3	0.0001	0.1
9	0.0045	217	15	- 1.11	- 3.56	3.73	162½	0.0020	6.8
10	0.0041	242	14	- 1.04	+ 1.38	1.73	37	0.0004	1.4
11	0.0037	266	12	- 0.27	+ 0.47	0.54	30	0.0003	1.0
12	0.0034	290	11	- 0.16	+ 0.05	0.17	73	0.0007	2.2
13	0.0031	314	10	+ 0.14	- 0.15	0.21	222½	0.0019	6.2
14	0.0029	338	9.7	+ 0.80	- 0.17	0.82	258	0.0021	7.0
15	0.0027	362	9	- 0.12	- 0.54	0.55	167½	0.0013	4.2
16	0.0026	386	8.5	+ 0.06	+ 0.18	0.19	341½	0.0025	8.1
17	0.0024	411	8	+ 0.33	+ 0.13	0.35	291½	0.0019	6.5
18	0.0023	435	7.6	zero	zero	zero	..	..	..

Fig. 42
(Harmonic plot)

Fig. 43
(Inharmonic plot)

Fig. 44
(r^2)

Fig. 45
(r^{100m})

The harmonic plot is given in fig. 42. Two graphs showing the variations of phase distances are drawn in figs. 44 and 45. In the harmonic plot (fig. 45), minima are observed at the 5th, 7th, 12th, 16th and 18th partials. The inharmonic components are then calculated as before and the results are tabulated as follows:

Component	Frequency	Ratio	Amplitude
I	66	2.7	26.2
II	143	5.9	6.3
III	216	8.9	5.0
IV	345	14.3	1.1

The inharmonic plot is shown in fig. 43.

Let us now proceed to discuss the results of harmonic analysis. The harmonic plot in Analysis I shows a strong initial partial and the third partial is a little stronger and the other partials are relatively weak. The harmonic plot of Analysis II shows relatively weak initial components with a strong third partial. After the third partial, a few partials are weaker and the rest are all insignificantly weak. The question naturally arises why the first partial in the first case is a strong one and the first partial in the second case is a weak one. This can be explained thus. As already stated the first analysis is that of *a* in *aḍai* in the utterance *nāṇaḍaiceyven*.

While uttering the speaker stopped for a little while after *nāṇ* and began afresh *aḍai*. The point is that the speaker uttered the phrase *nāṇ āḍaiceyven* with a short pause between *nāṇ* and *āḍaiceyven*. Therefore *a* had no initial contamination with any other speech sound. It is as good as an initial utterance. In such a case naturally we expect that the first partial should be strong since it is known that the strongest tone of a vowel is its fundamental. But the first partial in analysis II is weak. That is because this *a* is combined with the preceding consonant *y*. This consonant and the vowel form a single *consonant-vowel* integral unit combined in such a way that there is thorough continuity throughout. At the shift point the configurative energy is minimum and hence the fundamental cannot be strong. The strong partial appears only after the pressure due to the α -phoneme is released. This will be the case with regard to the fundamental of any vowel occurring under similar circumstances. For example Prof. E. W. SCRIPTURE analyses the vowel [o] in "fourteen".³⁷ He gets a weak first partial with a strong third partial. He adds "... we know that the strongest tone of the vowel is always the glottal tone or the fundamental. In the wave just analysed the harmonic interpretation represents it as very weak and the inharmonic one represents it as entirely lacking." Finding no better explanation, he attributes this as a defect of the analysis. He then proceeds to analyse the curve taking frictions into consideration. Even from such an analysis he gets the same difficulty. Then he explains the result as due to friction caused by great suddenness and hence exaggerates the first partial with high amplitude and change in form. In this connection his argument is worth noting (page 156). "In spite of the amplitude given to the fundamental it is evident this tone should be much more strongly represented for the reason so often repeated that this tone heard to be strongest of all and that the series of puffs from the glottis is the most energetic part of the vocal action. The glottal puffs may as in this case—have a great degree of suddenness. The suddenness will show itself in the curve in the same way as friction. We would be quite justified not simply in exaggerating the component found for the fundamental, but also in changing its form." But the process however is an arbitrary one. On the other hand we believe that in consonance with the theory developed in this paper a vowel occurring in a consonant-vowel configuration cannot have a strong first partial. In all such cases, we suggest, that the strongest partial may be taken representing very nearly the fundamental.

The next point is that even though the final partials in the harmonic plot of Analysis I are relatively weaker, they are strong enough when compared to the very weak character of the final partials in the harmonic plot of Analysis II. The reason

³⁷ *Ibid.*, pp. 2, 147 ff.

for this is easily seen. In the first case after a comes δ , which is an explosive and not a sonant fricative. The explosive character of the consonant itself adds much to the strength of δ . To establish a thorough continuity between the vowel a and the explosive δ , the α -phoneme naturally tries to keep up the strength of the vowel throughout so that it can easily pass on to the consonant. But in the second case the transition is from a to m . The following consonant, as explained already, is not a typical consonant. Hence a gradually diminishes and then passes on to the next region. Actually it is seen that the 18th partial has zero amplitude.

Another point of interest is about the inharmonics. The harmonic plot of Analysis I shows minima at the 2nd, 7th, 10th and 15th partials. The harmonic plot of Analysis II shows minima at 5th, 7th, 12th, 16th and 18th partials. Thus a sort of lateral displacement of the inharmonics is seen. It is therefore clear that a consideration of the inharmonics in the study of speech curves is as important as that of the harmonics. For, speech sounds are not produced necessarily by harmonic elements alone. When we utter the same speech sound a number of times, we say each time the sound assumes a different character i.e. no two utterances are identical.³⁸ Among other things a different mode of distribution of the inharmonics causes a difference in specific character. A lateral displacement of the inharmonics, as is seen in our analysis may suggest a rhythmic change in structure. The presence and distribution of the inharmonics are also factors in the specific character of a speech element.

A question naturally arises as to how the similarity in structure that is observable even visually, is exhibited in a harmonic analysis: The similarity in structure is mainly due to the similarity in phase changes. Consider the graphs for the variations of r^s and $r^{(-1m,m)}$ in Analyses I and II. In Analysis I the phase change is as follows: From partials 1 to 5 the phase change is an initial drop from a maximum and a gradual rise up. From partials 5 to 9 the phase change is first a drop to a minimum and then a rise up; from partials 9 to 12 the phase change is another drop and rise up. In the other partials changes are insignificant. Thus we have three sets of partials changing similarly in phase. In Analysis II the phase change is as follows: From partials 1 to 3 the change is one of sudden rise and a steady state, from 3 to 6, a gradual drop and rise, from 6 to 9 another gradual drop and rise, from 9 to 12 one more gradual drop and rise, from 12 to 14, a rise and an approximately steady state—resembling the phase changes from 1 to 3; from 14 to 15, a fall—resembling the phase change from 3 to 5; 15 to 16 a rise—resembling the phase change from 5 to 6; and 17 to 18 a gradual fall—resembling the phase change from 6 to 8. Comparing the graphs of the two analysis, we find that the changes occurring from the first partial to the 12th partial in Analysis I are quite similar to the changes that occur from the 3rd partial to the 12th partial in Analysis II, each case having three internal structures of similar type. This constitutes the similarity in structure.

Moreover it is noteworthy that in the second analysis the phase changes in the final particles are but a representation of the initial phase changes. Let us once again consider how the effect of the α -phoneme in structure is shown by a harmonic analysis. In the first case since the a is not contaminated with a consonant at the beginning, the

³⁸ See footnote 34.

phase change is from a high to a low value. In the second case since α is contaminated with an initial consonant, the phase change is from a low to a high value, as is naturally expected. There is practically no change in phase between the 2nd and the 3rd partial; also it is seen that the 3rd partial is the strongest. Perhaps the pressure due to the α -phoneme is released at the third partial which is seen strongest with a maximum phase change. The changes among the final partials in the first analysis are small and insignificant, clearly showing that those partials are affected by the influence of the α -phoneme which connects the vowel with an accompanying explosive. The great contrast between the values of the first few phase changes and those of the last few indicates the great strain in the transition to the explosive. On the other hand consider the phase changes in the graphs of the 2nd Analysis. The very fact that there is a repetition of the group of initial phase changes indicates that the transition is very smooth as is really the case, for a has y (a semivowel) on one side and m a nasal on the other side. The very fact that the values of the phase changes in the beginning and the end partials are not so very different when compared to the former case, also shows the smoothness in the transition. Thus we see how harmonic analysis of vowels gives a clear comparative picture of the vowels as such.

We are now in a position to realise the main factors that determine the (specific-character, of a speech element. Broadly summarising, the factors are (1) the frequency range and its internal variations, (2) the structural amplitude range and its internal variations, (3) the total amplitude range and its internal variations, (4) the changes in the logarithm of intensity, (5) the relative magnitude of the partials obtained, through harmonic analysis, (6) the presence and distribution of the inharmonics, (7) the phase distances of the partials in length and (8) the phase distances of the partials in time, of a speech element. A number of graphs showing all these characteristics of a particular speech element together constitute a 'specific character plot.' Thus we see the truth of the statement "the specific profile of an element is an expression of its specific character."

... On the basis of the theory developed in this paper we now proceed to explain some of the facts which have not so far received any satisfactory explanation. The first and foremost is the question of the diphthongs. Some of these so-called diphthongs turn out to be only long vowels according to SCRIPTURE.³⁹ Elements like diphthongs or triphthongs are also generally conceived to be made up of more than one short vowel. In Tamil and in the parent Indo-European language the diphthongs are again considered to be separate speech sounds.⁴⁰ In many languages a large number of diphthongs are said to exist.⁴¹ Guy S. Lowman points out the various ways by which au is treated in Virginia.⁴² Explanations on the character of diphthongs are all far from satisfactory upto now. For example Prof. SCRIPTURE⁴³ speaking on the record of au in [without] says "Another observation forces itself upon us in the curve for [au]. Since the form steadily changes from beginning to end of [au] we must

³⁹ E. W. SCRIPTURE, *op. cit.* p. 43.

⁴⁰ See P. S. Subrahmanya SASTRI, *Tamil Molli Nūl*. p. 40, 1936.

⁴¹ For instance See in Lahnda. Siddheshwar VARMA, *Journal of Royal Asiatic Society of Bengal*. Letters. 2. 1936, Article p. 61 ff. 72.

⁴² *Proceedings, II Second International Congress of Phonetic Sciences*.

⁴³ SCRIPTURE, *op. cit.* p. 41.

conclude that this sound is not a diphthong composed of a sound [a] followed by a sound u but is a single sound which begins in one way passes gradually through various forms and ends in another way. That we think we hear the two sounds [a] and [u] is mainly a matter of suggestion from teaching. Many other so-called diphthongs show a structure like this one. Is it an illustration of a general law for all diphthongs? Or is it an isolated fact?” Prof. SCRIPTURE’s observations are highly illustrative and the questions are all very legitimate. Such observations are noted in our records as well. For example figs. 4, 5 and 6 are the records of the same sentence *nān adaiaceyven* as already referred to above. Here we meet with a diphthong *ey*. Its greater length than that of ordinary vowels is quite obvious from the record. We also note that in the whole structure there is a continuous change throughout. But nowhere the change is abrupt. This continuous change in structure throughout is in consonance with Prof. SCRIPTURE’s observations. Moreover, leaving alone the structure representing the diphthong for a moment, let us concentrate on the path of the wave form. We note that it itself constitutes a periodic smooth curve. Thus there is a sort of resonant movement throughout. Also the oscillations occur more or less at the same amplitude range. Such diphthong structures are observed in many of our other records as well.

All the experimental observations go to prove the complex nature of the diphthongs. An exact concept of the diphthongs in general is the desideratum. In the following paragraphs an attempt is made to get at such an exact concept of a diphthong.

A rapid survey of a few records is now essential. Referring to fig. 4 when δ in *adai* is uttered the path of the wave form rises up and when first *c* is uttered, the path of the wave form descends down. The utterance of second *c* brings about a rise in the path of the wave form and that of *v* brings it down. Referring to fig. 10 it can be easily noticed that the commencement of β' , *y* and *m* brings about a change in the direction of the path of the wave form. Of course the change is gradual. In fig. 11 also it may be noticed that the path of the wave form suffers a gradual change in direction when *r*, *v*, δ and *l* are uttered. By similar observations in every other record, it is concluded that the utterance of a consonant brings about a change in the path of the wave form in a speech record. Depending on the consonant and the mode of its utterance the change may either be gradual, sudden, insignificant or prominent.

Let us now consider the nature of the diphthongs. In a flow of speech wherein a diphthong occurs, it can be realised that the diphthong has got a consonantal tinge at the end. For example *au* has a tinge of the consonant *v* at the end and *ey* has a tinge of the consonant *y* at the end etc. Though these consonants are what are well known as semivowels they have consonantal characters. However a diphthong [or a triphthong] is made up of one or more vowels with a consonantal tinge at the end. These components are combined in such a way that they together constitute an individualistic character, i.e. they do not exhibit themselves as separate entities simply juxtaposed in a linear order in time. Just putting the components together, the fundamental force unit of a diphthong may be represented as

$$V_1 - V_2 - - - C$$

where v_1 and v_2 represent the fundamental force units of the vowels v_1 and v_2 ^{43a} and

^{43a} The true diphthongs really are *ai* and *au* made up of \bar{a} and *i* and \bar{a} and *u* respectively,

c that of the consonant. The straight line indicates the prominent character of the speech sound and the dotted line indicates the weak character. Since only a consonantal tinge appears at the end, the consonant character is a weak one. According to the theory developed in this paper, the continuity between a vowel and a consonant is established through the α -phoneme. Hence the fundamental force unit of a diphthong may be represented as follows :

$$V_1 - V_2 - - \alpha - - C - - \alpha - - V_1 - V_2$$

In an utterance, such a force unit repeats itself a number of times. Hence a diphthong—utterance may be written as

$$V_1 - V_2 - - \alpha - - C - - \alpha - - V_1 - V_2 - - \alpha - - C - - \text{etc.}$$

In a diphthong-utterance wherein such a chain occurs, we see the consonant occurring a number of times. Every time the consonant occurs the path of the wave form suffers a change in direction. Because of the influence of the α -phoneme as many number of times as there is occurrence of the consonant and because of the intrinsic weak nature of the consonant itself, the change in the path of the wave form will be the smoothest possible everywhere. The above representation of the diphthong, however cannot fully explain the continuous change in the structure.

We may now suppose that the diphthong-utterance does not merely consist of an open chain structure, but of a closed chain made up of a number of $V_1 - V_2 - - \alpha - - c$ units, such that in the whole structure each bit is symmetrical to every other. In its simplest form such a closed structure can be represented as in (Fig. 46).

As has been shown already, the effect of the α -phoneme is to bring about a change in structure at the shift point from a vowel to a consonant (or a consonant to a vowel) in its operation to establish thorough continuity. In a diphthong-utterance all its force units form a closed chain. In this operation there is a continuous change in equilibrium from the vowel to the consonant. Also a $v c$ or $c v$ configuration occurs throughout with rhythmic periodicity. In the closed structure formation every unit influences every other. As a result the closed structure forms a single unsplitable unit. This explains the remarkable change in structure throughout. The number of $V_1 - V_2 - - \alpha - - c$ units in closed configuration depends on the mode of utterance. Yet for a diphthong formation at least a minimum of three units is essential, whereas in the case of ordinary vowels a minimum of a single unit is sufficient. This explains the correlation, but not a necessary correspondence between the diphthongisation and the duration of the vowel.⁴⁴ The most general concept of a diphthong can be given by a closed chain structure diagram as shown in Fig. 47.

Such a concept, as we see, gives a satisfactory explanation of all the observable phenomena. The diphthong problem is a very interesting and difficult one and the present work offers new fields for investigations as regards the exact characteristics of diphthongs. The whole problem has yet to be fully worked out.

The α -phoneme theory also affords a satisfactory explanation of the appearance of the semivowels when two vowels come together in the flow of speech. Semivowels,

see I. J. S. Taraporewala, *K. B. Pathak Commemoration Volume*, 317. \bar{a} can be easily conceived of as $a + \alpha$. Hence $V_1 - V_2$.

⁴⁴ Cf. A. W. DE GROOT *Le Syllabe* ; *Essai de synthèse BSL* 27, 1927, p. 16.

ordinarily speaking are the speech elements having the consonant and the vowel characters more or less to the same degree. As already explained the α -phoneme energy is generated *automatically* whenever a consonant and a vowel or a vowel and a consonant come together in ordinary speech. Since every speech consists of a number of C V or V C groupings, we may say that the α -phoneme energy is generated *automatically* whenever we begin to speak. But during speech when two vowels come together the appearance of the α -phoneme is resisted. This brings about a *friction* in speech. Naturally while speaking we always tend to speak with the least friction i.e. the α -phoneme energy tends to appear even between two vowels in an ordinary speech. But its appearance is possible only when a consonant comes between two vowels. Hence naturally a semivowel creeps between the two vowels. That is why we see the appearance of the semivowel 'y' between *a* and *i* in *vaiŋge*.

The problem of syllabification is a moot one in linguistics.⁴⁵ In spite of the existence of various theories, the exact mechanism of syllabic divisions is not quite well known. In this connection there is one important point which should receive the attention from all experimental phoneticians. That is, whether there is any natural affinity between a consonant and a vowel, what A. W. DE GROOT⁴⁶ calls the tendency towards normalisation, the suspected preference of any speaker to commence a syllable by a consonant and end it with a vowel. If there is any such affinity, is there any difference in magnitude of the affinity between a consonant and a vowel on the one hand and a vowel and a consonant on the other hand? A consideration of this point, as can be easily seen, will have direct bearing on this paper and it is hoped that experimental work can offer a satisfactory mechanism of syllabic division.

The exact influence of the α -phoneme in accented and rhythmic utterances is still to be investigated.

The exact nature of the consonants and their relative positions in speech phenomena as such are problems that require considerable attention from experimentalists.

Thus the α -phoneme theory presents new fields for investigation for an experimental phonetician and hence its importance in Linguistics cannot be over estimated.

Conclusions. We are led to the following conclusions by our investigations :—

(1) In the utterance of any consonant—vowel configuration, the duration of the consonant is relatively small. Then the vowel which is relatively of a higher duration is alone heard, when the consonant and the vowel are separated so far away as to be outside the influence of the α -phoneme. But when an imperceptible consonant and a vowel come together sufficiently close as to be within the region of the α -phoneme, its influence is clearly marked and the consonant becomes perceptible.

(2) The α -phoneme does not therefore exist between a vowel and a vowel, or a consonant and a consonant in any utterance. The α -phoneme can by no means have a physical representation by itself. It can never be recorded isolated. Only the effect due to the α -phoneme can be demonstrated experimentally as well as the effect due to its absence and both the effects can be studied as we have shown above.

(3) The α -phoneme is an important factor that goes to make up the 'specific character' of a speech element. The theory thus is an important advance over the *latest theory* of GEMELLI.

⁴⁵ BSL, 27, pp. 1-42.

⁴⁶ *Ibid*, p. 6.

(4) Since there is no α -phoneme between a vowel and a vowel, or between a consonant and a consonant in any utterance, therefore, in such combinations, the commonsense idea of *discontinuity* in speech still really holds good in the sense that there is a definable change point in such instances. So we are led to the startling conception that speech is both continuous and discontinuous—a conception which we need hardly stress as of fundamental importance in the modern scientific methodology as a whole; convincing demonstration in this matter by experimental means is possible.

(5) The effect of consonant in speech is to bring about a small change in direction in the path of the wave form. The α -phoneme distributes its energy in such a way the change in direction is brought about very gradually in imperceptible degrees, thus ensuring continuity when a vowel is followed or preceded by a consonant in any utterance—event. There is experimental evidence for this, for we actually see in the curves the appearance of a continuous structure even though there are sharp changes in the path of the wave form.

(6) The α -phoneme theory can explain what a diphthong really is. The theory we choose to call 'the closed chain structure theory of diphthongs' is a direct corollary from the α -phoneme theory.

(7) Again only the α -phoneme theory can give a satisfactory explanation of what a semivowel is.

(8) The α -phoneme is a section corresponding to the section of the class of irrational numbers in the number system. Therefore every consonant and every vowel may belong to the lower or to the upper class, as in sections where every number belongs to the lower or to the upper class and which (sections) may also be regarded as defining numbers, the real numbers positive and negative infinity.^{46a} This is a very helpful idea, for this alone strengthens TWADDELL'S conception of 'a phoneme' as an abstraction.^{46b} TWADDELL is right in maintaining that the phoneme as a quantitative unit is a difficult enough concept and that these units are by no means quantitatively comparable.⁴⁷ The interpretation in regard to our proposition defining any consonant and any vowel in any consonant—vowel configuration is *fixed* by the context of our α -phoneme. We mean only sections as in number system (and not asserting something like a proposition of elementary arithmetic.)⁴⁸ Therefore the question of comparison of any one vowel with another, any consonant and any vowel, any consonant with any other consonant does not arise at all, if we mean by such comparisons something like the following:—'[τ] is not equal to 3.76. [p]' A proposition clearly of elementary arithmetic! The physical reasons for the impossibility of such an assertion are, we deal both with amplitude and phase-changes. Thus we see that the mathematical section idea is conveniently used for defining any vowel and any consonant and therefore it is hardly necessary for us to point out that the α -phoneme is a purer *abstraction* than TWADDELL'S serving as the strong basis for his own conception regarding phoneme. We are not, however, prevented from using harmonic analysis where only relative values of appreciable accuracy are needed.

^{46a} G. H. HARDY, *A course of Pure Mathematic*, 8th edition, p. 15.

^{46b} See also J. B. MCMILLAN, vowel nasality as a sandhi form of the morphemes *-nt* and *-ing* in Southern American. *Am., Speech*, 14. 120-3.

⁴⁷ TWADDELL, *On Defining the Phoneme*, p. 22, f. n. 4. Lang. Monograph, No. 16, 1935.

⁴⁸ G. H. HARDY, *A Course of Pure Mathematics*, 8th ed., p. 14.

The α -phoneme theory inevitably leads us to the idea of the *continuous spectrum* (which replaces the line spectrum) of the damped single impulse vibration; in other words where a Fourier series is replaced by a Fourier integral.⁴⁹ It is a frequency continuum with density. Its structure must be worked out experimentally in full detail. Complete oscillographic researches are necessary for such a spectrum analysis. These ought to be supplemented by X-ray work making exposures fast enough to show what the tongue is doing in the whole course of transition from sound to sound, i.e. from vowel to vowel, and from all of the numerous consonants to each of those vowels and to each other—a splendid thing indeed as G. Oscar RUSSELL,⁵⁰ a pioneer in this field observes!⁵¹

⁴⁹ R. W. POHL, *Physical Principles of Mechanics and Acoustics*, English Translation by W. M. DEANS, 1932. p. 237. The clear formulation of the 'cut' conception leading to the construction of a time-continuum of $V \propto C$ is an effective answer to the important questions 'can the Phoneme be defined in terms of time? Cf. Vachek, *Mélanges Van Ginneken*.

⁵⁰ G. Oscar RUSSELL, *The Vowel*, p. 75.

⁵¹ We acknowledge our grateful thanks to the Director of the Institute and Head of the department of Linguistics for all the encouragement and facilities given to us for this work.

Also our thanks are due to Mr. O. N. Heramba DEVAN who gave valuable help to us in the experimental work, and to Mr. M. C. Trivedi, Manager, Photoregistry office and Photographic expert to Govt., Poona, for his neat execution in photographing several of our records.



Fig. 1. Speech-testing Apparatus.

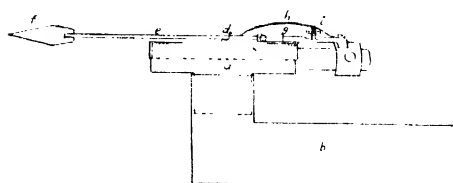


Fig. 2. Recording Lever.

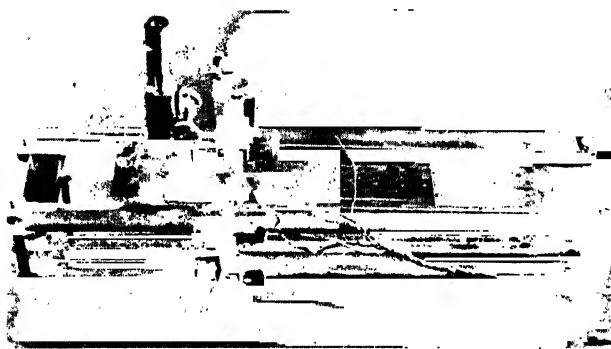


Fig. 3. Traversing Microscope.

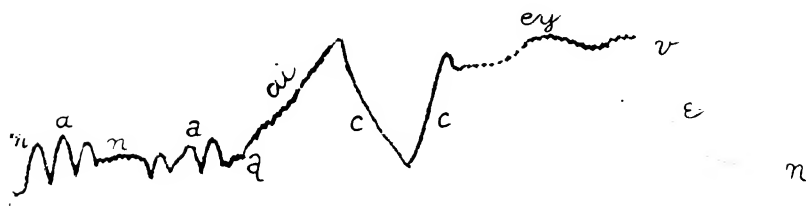


Fig. 4.

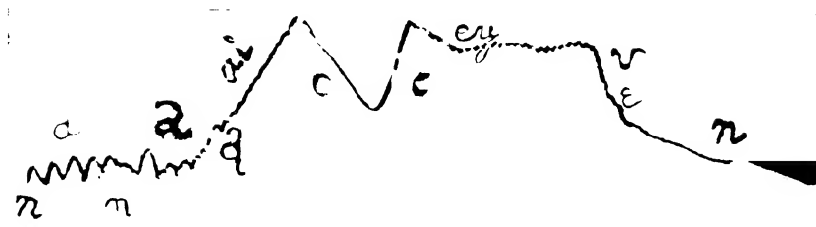


Fig. 5.

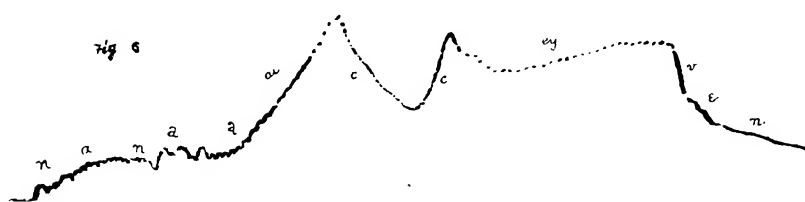


Fig. 6.

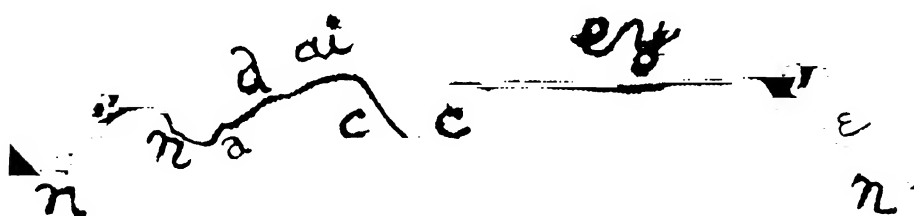


Fig. 7.

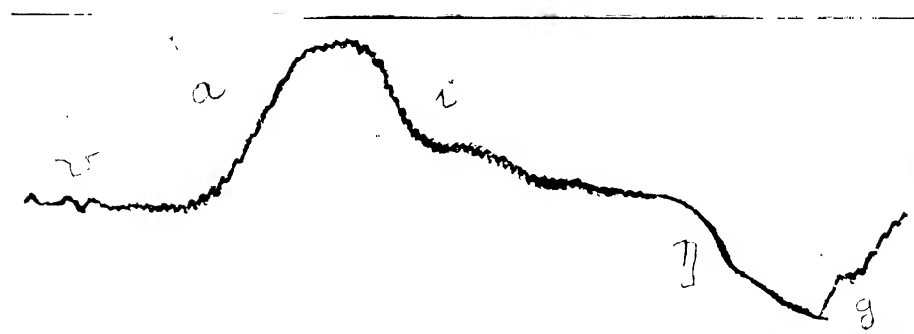


Fig. 8.

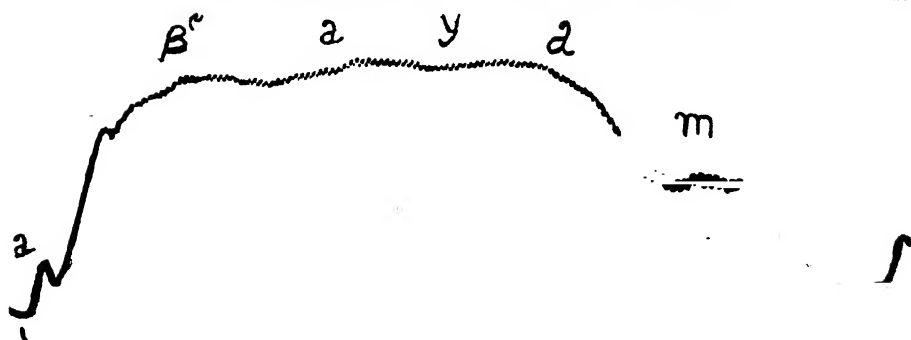


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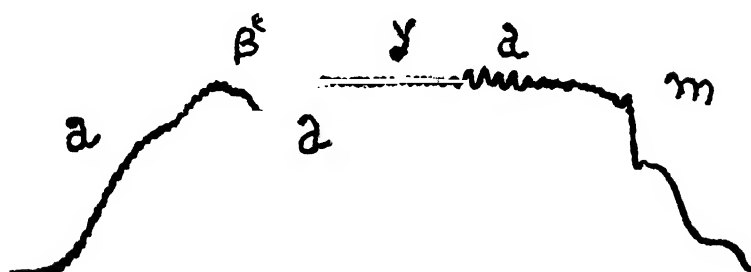


Fig. 10.

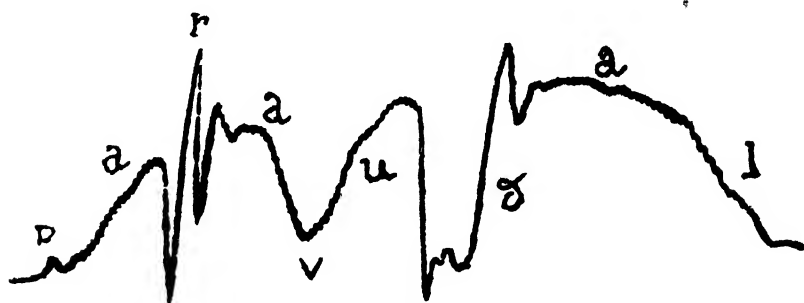


Fig. 11.

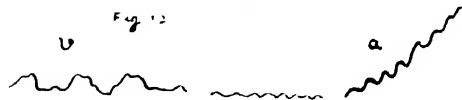


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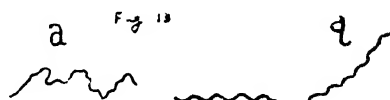


Fig. 13.

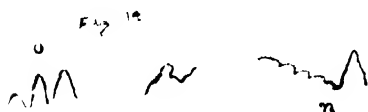


Fig. 14.



Fig. 15.



Fig. 16.

Fig 17



Fig 18

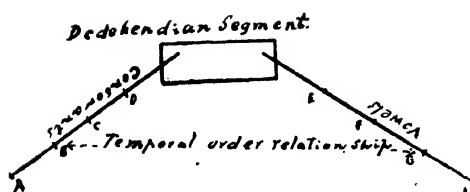
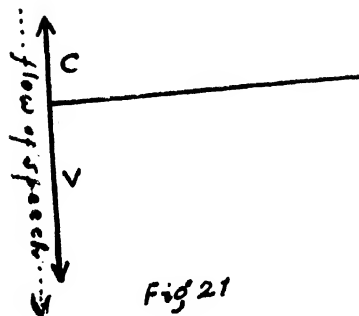
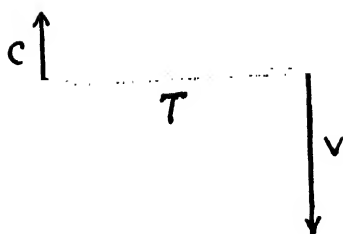
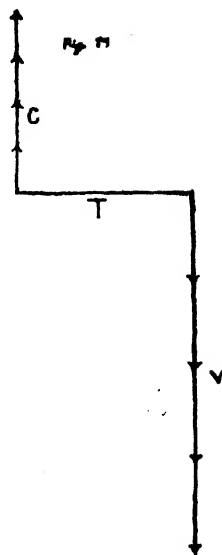


Fig 22



Figs. 17, 18, 19, 20, 21, 22 & 23.

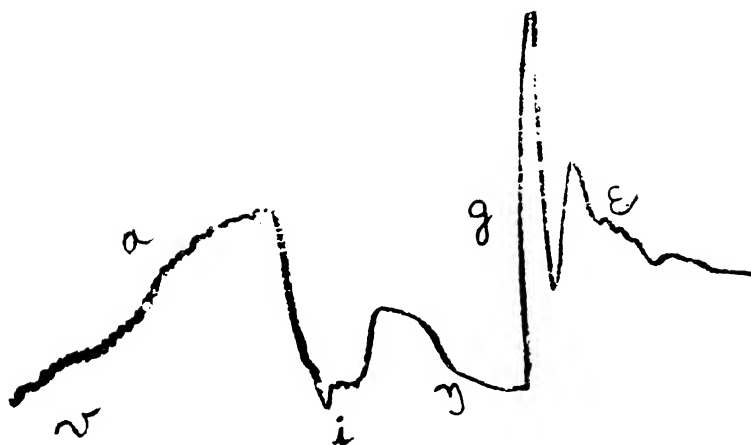


Fig. 24.

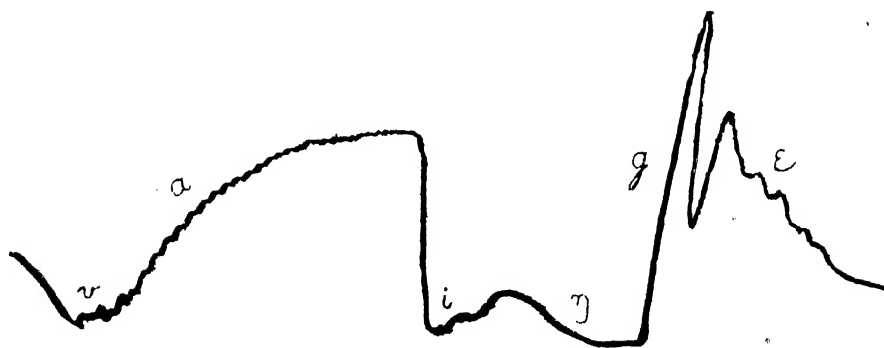


Fig. 25.

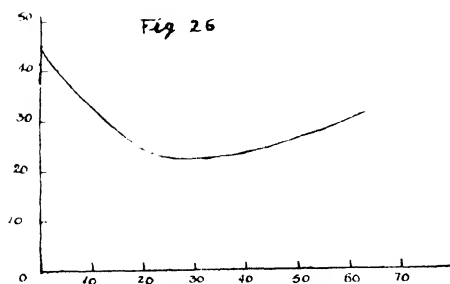


Fig. 26. Melody Plot for Fig. 4.

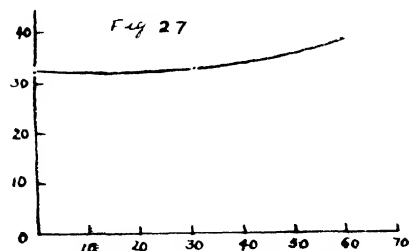
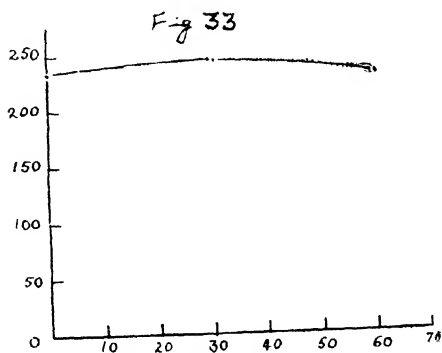
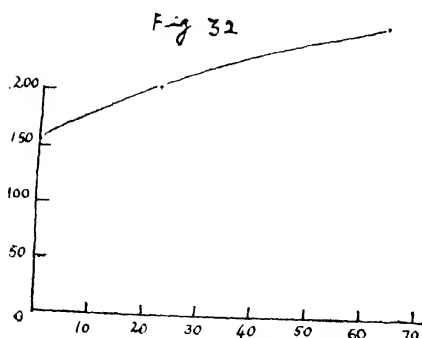
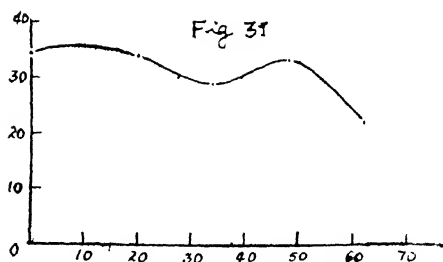
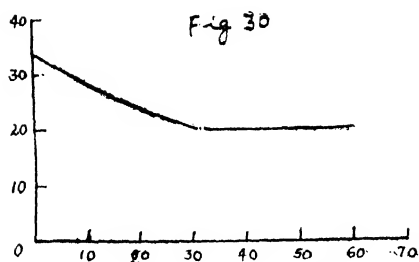
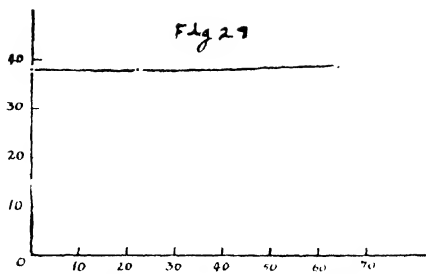
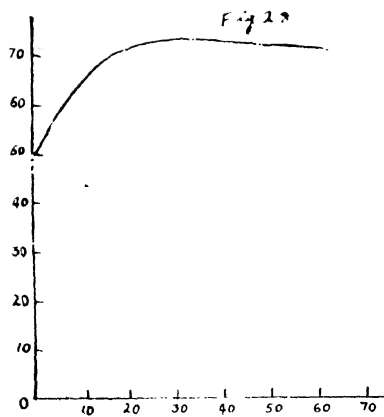


Fig. 27. Melody Plot for Fig. 5.



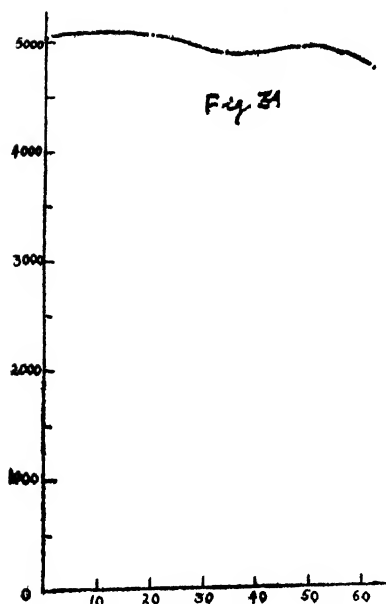


Fig. 34 Intensity Plot for Fig. 10

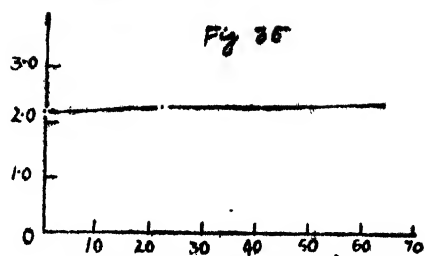


Fig. 35 Loudness Plot for Fig. 4

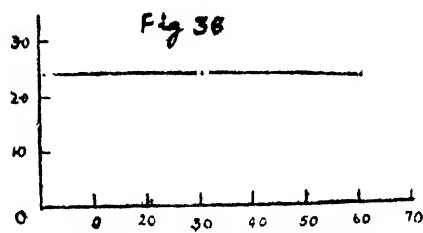


Fig. 36 Loudness Plot for Fig. 5.

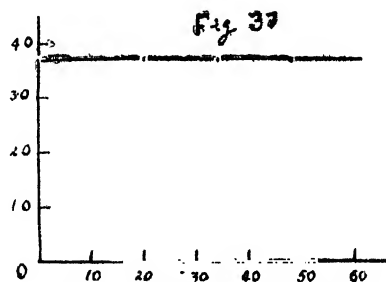


Fig. 37 Loudness Plot for Fig. 10.

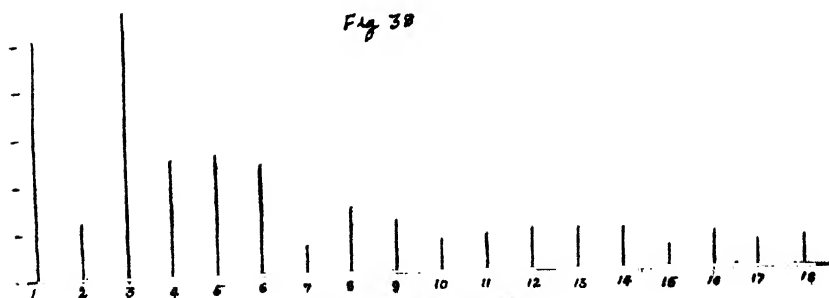


Fig. 38. Harmonic Plot.

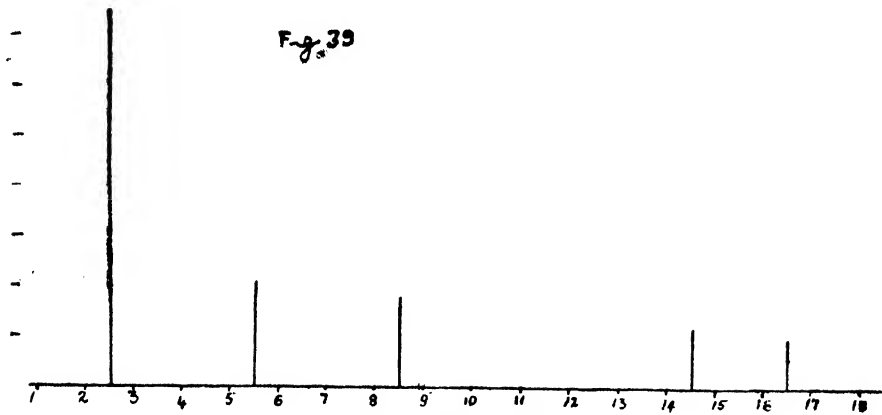


Fig. 39. Inharmonic Plot.

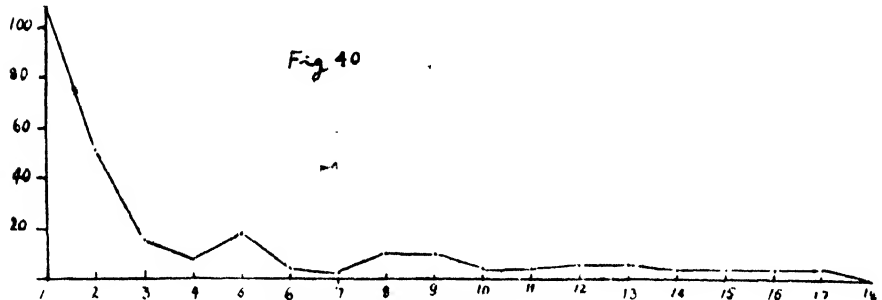


Fig. 40. Phase distances (γ_{110nm})

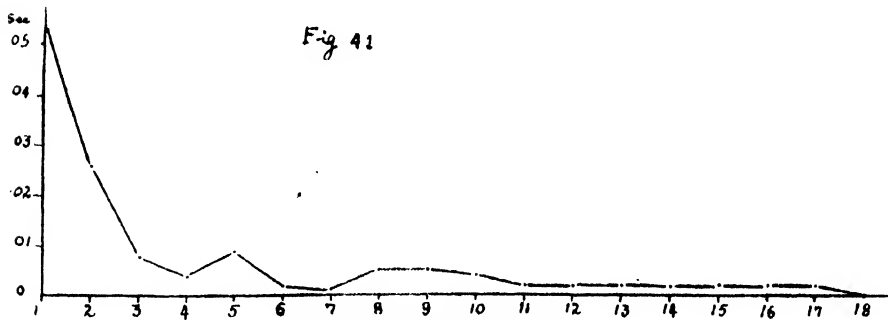


Fig. 41. Phase distances (γ^a)

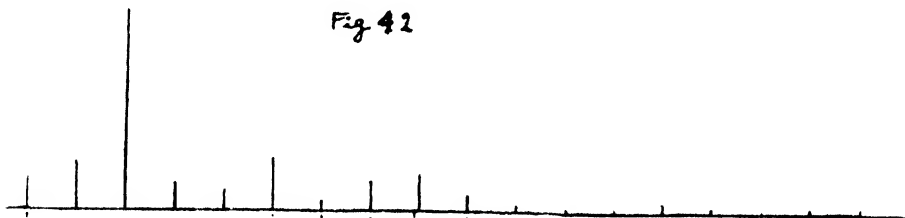


Fig. 42. Harmonic Plot.

Fig 43

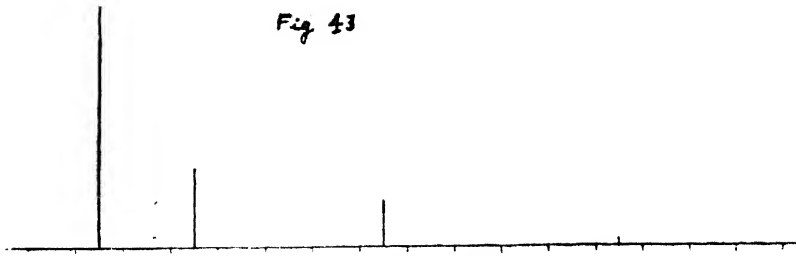


Fig. 43. Inharmonic Plot.

Fig 44

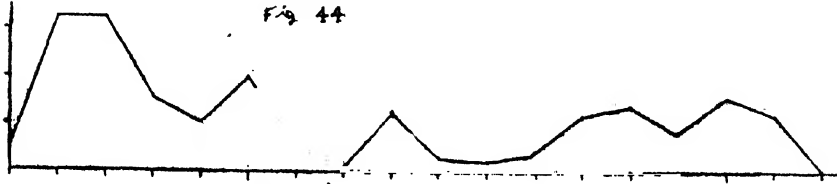


Fig. 44. Phase Distances ($\gamma^1\text{mm}$)

Fig 45

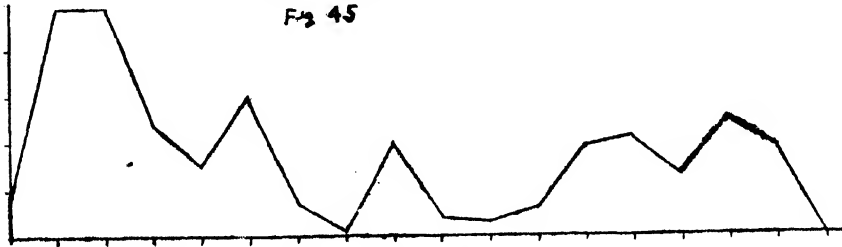


Fig. 45. Phase Distances (γ^a)

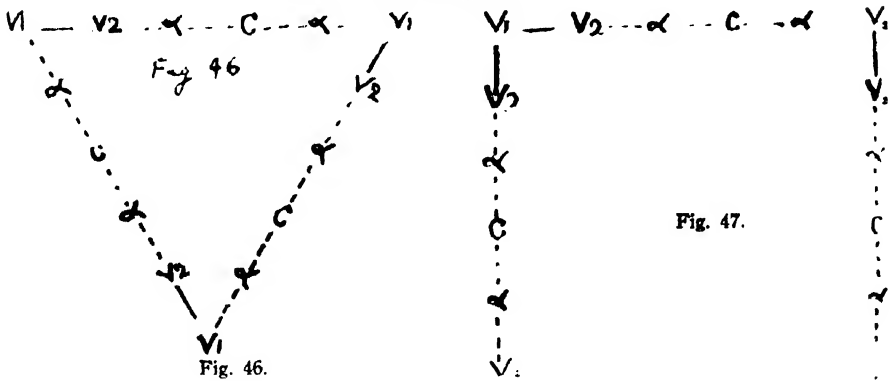


Fig. 46.

Fig. 47.

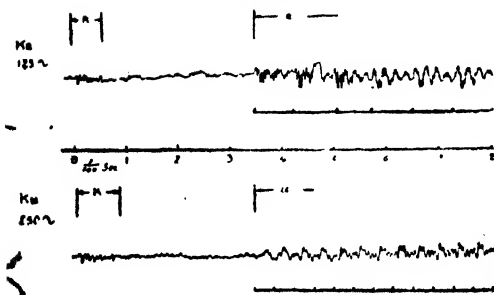


Fig. 48. Appendix 1. Reproduced from the Proceedings of

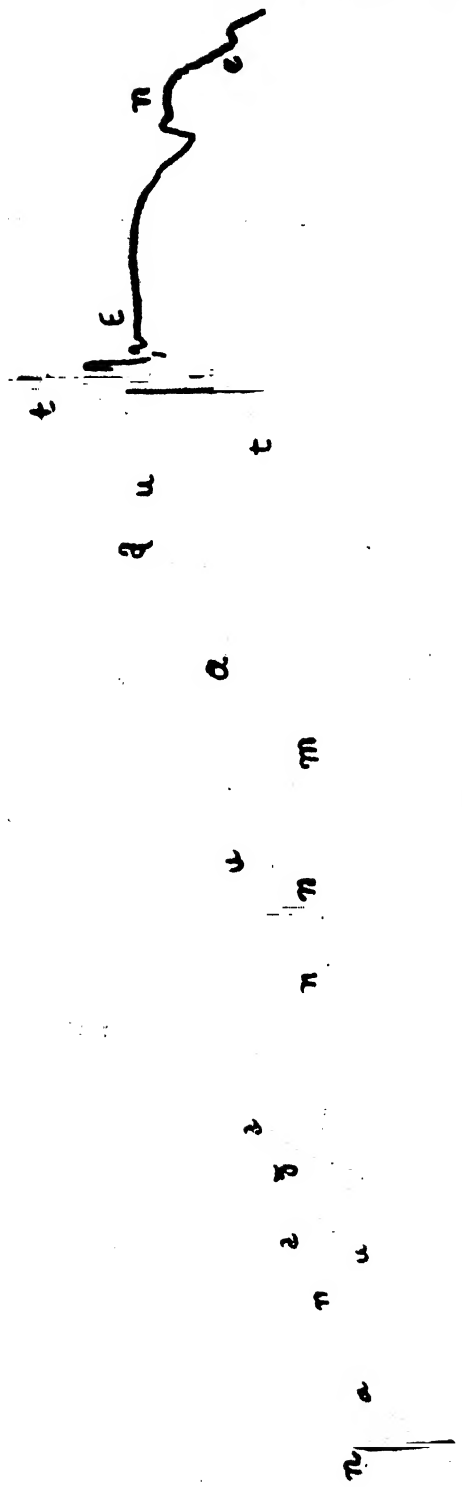


Fig. 49. Appendix 2. Speech Curve.

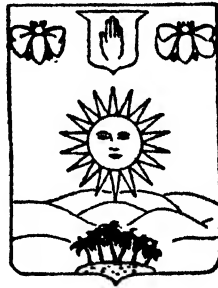


Fig. 50. Appendix 3. Time Curve.

VOL. VI.

No. 3.

BULLETIN
OF THE
DECCAN COLLEGE
RESEARCH INSTITUTE



March 1945

POONA

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STUDIES IN PRE-HISTORY OF THE DECCAN (Maharashtra): A FURTHER SURVEY OF THE GODAVARI. (March 1944).

By

H. D. SANKALIA

Sections of the Godavari and its tributary the Kadva river were surveyed last year by myself and my pupil, D. R. PATIL.¹ This survey had proved promising and it was deemed desirable to survey the whole valley from Nasik to Paithan, particularly the places where the old gravel-remains were indicated by one inch to a mile Survey Map and the District Gazetteers.

Accordingly the places indicated in my last report, particularly those on the Godavari were visited. The party consisted this year of Dr. D. R. PATIL and Dr. M. G. DIKSHIT (who was sent out to learn and help PATIL). Their Report is as follows :—

This year (March, 1944) the following sites were selected from the District Gazetteers and Survey Maps.

1. Godavari-Darna Sangam.—*Nasik Dist. Gazetteer*, p. 8.
2. Chas.—Survey Map Sheet No. 46 L/8. The site is very extensive and covers nearly a mile.
3. Murshitpur, 4. Jeur.—Here the Survey Map Sheet No. 47 I/5 indicates only small patches.
5. Kopargaon.—*Ibid.* The site covers nearly half a mile.
6. Kokamthan.—*Ibid.* The site covers nearly one mile.
7. Sada.—*Ibid.* The site extends over half a mile.
8. Puntambe.—*Ibid.* The site extends for nearly a mile.

The party decided to follow the course of the river from Nasik downwards. Thus the site nearest to the source of the river i.e. the Godavari-Darna Sangam was the first to be explored.

The Godavari-Darna Sangam

The Darna is the most important tributary to the Godavari in the Nasik district and after flowing through a long stretch of about fifty miles it meets the Godavari near Sangvi, a village about 15 miles below Nasik. It can be reached from Chandori, the nearest village of some importance being the family seat of Sardar Hingne whose ancestors were the chief ambassadors of the Peshwas at the Court of the Mughal Emperor at Delhi. The journey is through rough cart tract along the banks of the Godavari from Chandori till Sangvi covering a distance of about 7 miles. The confluence (*sangam*) is about a furlong up the village and its site is marked by two large mediaeval 17th century Maratha temples dedicated to Mahadeva on both the banks of the river Darna and perched on the hill-top formed by the high alluvial silt.

Before it is joined by the Darna, the Godavari flows on a trappy bed for about half a mile wading its course through the cliff-like banks about 15 to 20 feet high

¹ Cf. BDCRI 4.186 ff., where the geological features of the country are described in detail.

consisting mostly of alluvium. In comparison to Godavari the bed of the Darna is very shallow but its banks are as high as 10 feet in places. The river-bed both in the Godavari and the Darna is entirely denuded of large pebbles and nowhere near the Sangam could we find the gravel section mentioned by the district gazetteer. It is only when we walked along the left bank of the Godavari upstream that we located a small patch of gravel just north of the village Sangvi (section 1) where the river winds its way to south-west. The Sangam is nearly a quarter mile from this site. The gravel, as it is now exposed, just touches the river-bed and part of it is still under water; it is about 5 feet in depth and after stretching itself for nearly 25 feet it disappears altogether. Nowhere in the bed of the present river do we see any traces or washouts from this gravel. The alluvium that overlies this gravel is about 10-12 feet in height. The gravel is not hard. It is grey in colour and soaked with water from the river-bed. Our examination of this gravel did not yield any implement and it therefore appears that this particular gravel section is not implementiferous.

Sites in the neighbourhood of Kopargaon

We then proceeded to Kopargaon as it is a very convenient centre for exploring the six or seven sites in its neighbourhood.

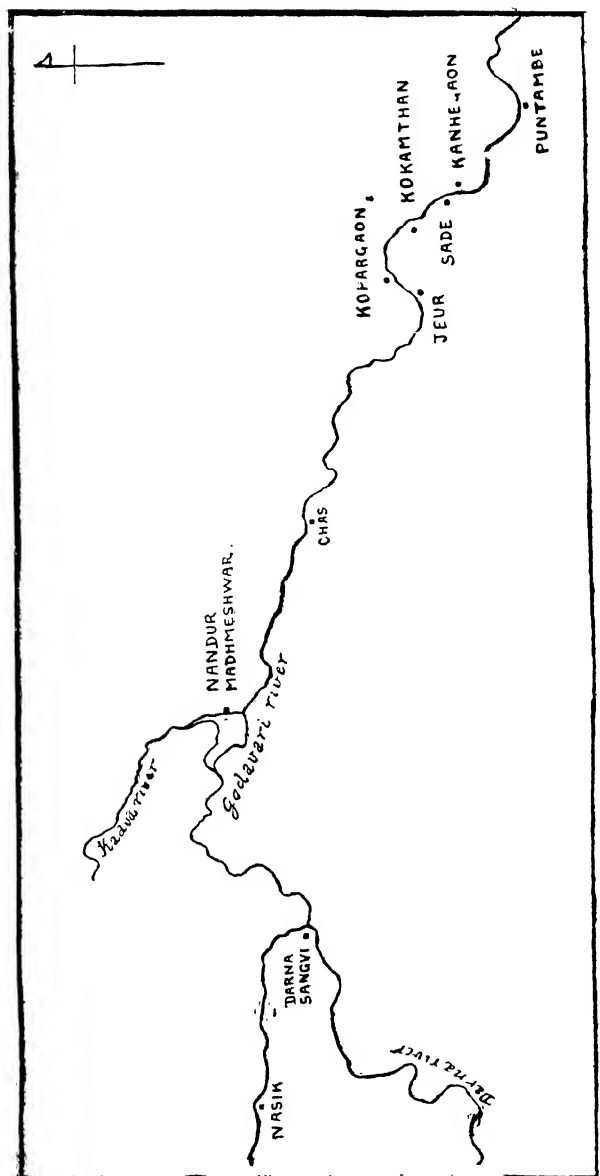
The town of Kopargaon is on the Dhond-Manmad section of the G. I. P. Railway and about three miles from the station of the same name. It is situated on the northern bank of the river. Not only that the Godavari, here, has high cliff-like banks, about 20 to 30 feet in height, (Section 2), but there is also evidence to show that the river has changed its course within the last 150 years. Not far off from the present river-bed there stood formerly an island in the mid-stream of the river, which can clearly be marked by the remains of the *wāḍā* or a palace of the Peshwa Ragho-badada and the ghats in its neighbourhood. All these remains are now on the opposite bank of the river and the tributary encircling the island has altogether disappeared. In its place however there has been formed another island about $1\frac{1}{2}$ mile up the stream of the river which seems to have been a recent formation as it is not plotted on the Survey Map.

We continued our search for the gravel sections first along the upper course of the river right up to the villages Jeur and Murshitpur, 4 and 5 miles respectively from Kopargaon. A small patch was noticed on the right bank of the river about half-a-mile from the town. This patch was 4-5 feet in depth over which the alluvial stratum lay for about 10-15 feet. The gravel was soft and reddish-brown in colour. It did not yield any implements. As we proceeded further to examine the bed of the river in its vicinity, we found a few portions from the same gravel patch washed down in the bed. In one of the patches, *in situ*, we found a small flake embedded but while extricating it from the conglomerate it was cut into two pieces. In the bed of the river one notices patches like these occasionally but in no place are they continuous or stretch for any considerable distance. It has been observed by us that such grave-patches occur mostly a little above where bare trap is exposed in the river-bed, as also in places where the river bends suddenly the gravel usually being well preserved on the opposite bank.

The Site at Jeur :

The Survey was then continued downstream. About half a mile east of the

PLATE I



MAP SHOWING THE PRE-HISTORIC SITES ON THE GODAVARI
SURVEYED IN 1943/44

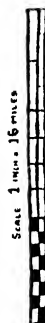
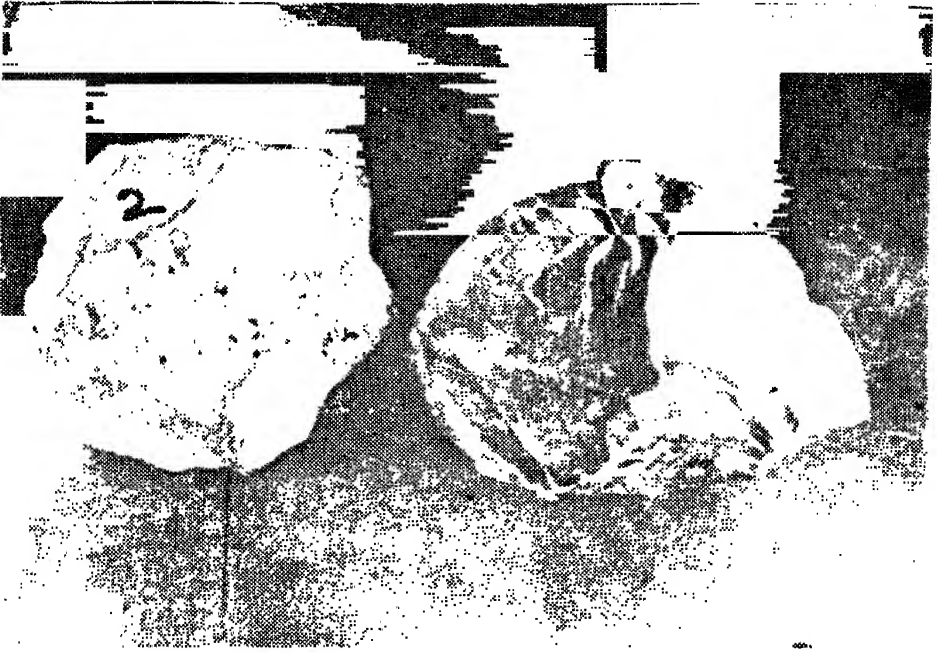
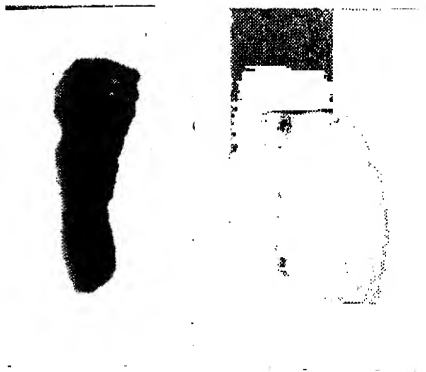
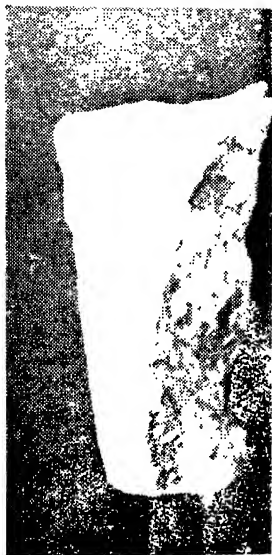
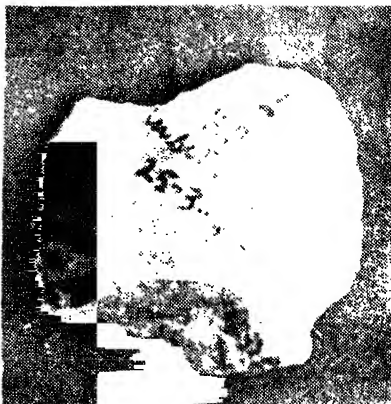


PLATE II



Tools from the old gravel on the GODAVARI

PLATE III



Tools from the old gravel on the Godavari

PLATES IV-V

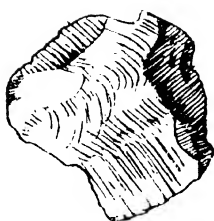
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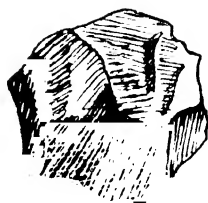
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KP-1

13

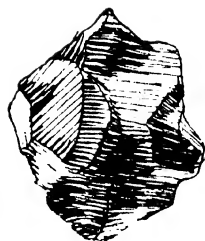
2



KP-2

3

2



KP-2

4



S-30

5



S-30

6



S-1

7



S-2

8



S-4

9



S-5

10



S-8

11



S-11

14



S-13



S-16



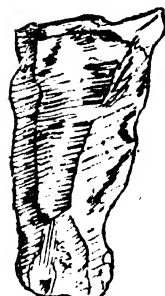
S-19



S-24



S-24



S-31

Tools from the old gravel on the Godavari

town, on the left bank of the Godavari we found a gravel stratum which is continuous for nearly two or three furlongs. The gravel here stands on the trap which forms the bed of the river and is superimposed by the alluvium of nearly 10 to 15 feet in height. The gravel had cemented into a very hard grey conglomerate. It yielded us a few agate and chalcedony flakes. As this site appeared to be very promising we continued a vigorous search for implements but not with much success. No pebbles could be seen in the bed of the river here as in many other places in the vicinity.

The Site at Kokamthan

On the next day we visited the site near Kokamthan. The village is about 4 miles south-east of Kopargaon, situated on the right bank of the river. The site is about a mile downstream from the ancient Yadava temple known for its exquisite carvings and stucco work. As we go downstream there is almost a continuous stretch of gravel for over a mile where the river flows through trap rock cutting across numerous channels and gullies. Several large boulders stand in the midst of the bed and show the action of the river current on them. The alluvial strata in so far as it was preserved in a few places was about 10 feet high and it was only in this region through our survey that we noticed the existence of large pebbles in the midst of the stream. There was no gravel section nearby and the pebbles seem never to have been used as material for tools by Early Man.

The site at Sada

But we continued our search beyond Kokamthan and after walking a distance of about 4 miles we reached the village Sada, in the neighbourhood of Kanhegaon on the left bank of the river. Here we found that the gravel section extended for over three furlongs, though some portion of it appeared to have been washed away. Remnants of these were noticed by us in the bed of the river, which was at its lowest level in the summer season. The gravel *in situ* along the banks of the river was well cemented and extremely hard for the hammers we possessed. The portions from the same which had been displaced and were redeposited in the bed of the river were somewhat softer and easy to work in. The gravel section on the bank proved to be implementiferous and yielded us no less than 16 implements mostly of agate, chalcedony, jasper etc. These are described below in detail (see Appendix). The alluvial stratum rose to about 7-14 feet in height, while the thickness of the gravel stratum was from 2-3 feet. (Section 3).

We had marked three sites in the neighbourhood of Kanhegaon a little further off Sada, but none of them proved to be of any importance in so far as implements were concerned. Gravel patches indicated by the Survey Map had been marked by us in the respective areas but these yielded no implements. The alluvial strata in almost every case, at three sites, ranged from 10ft-15ft in height and the gravel patches from 2ft-3ft. The patches were not continuous and appeared to have been washed out by river action.

Shas

This site lies about 20 miles north-east of Kopargaon. We had to explore this site before undertaking our work at Kopargaon, but could not do so for want of con-

veyance. Later with some difficulty we could procure a Tonga to take us to the place. The village Chas is situated on the metalled road running from Chandwad to Vinchur. There is no regular bus service on this road now. The site is just near the causeway on the river. Here we could find nothing but the Deccan trap which forms the river-bed and also its banks for more than a mile. On the trap is a small section of alluvium which is only 5ft high at some places. The river here drains through the trap, cuts it into channels and offers an impressive spectacle of a huge tunnel, locally known as "Nalee" through which the main flow of the river water runs in the dry seasons. The river-bed is fairly shallow with no cliff-like high banks, but as we go downstream such high banks are no doubt observed. On the whole the site failed to yield us anything.

Puntambe

The town Puntambe is a railway station on the Dhond-Manmad Railway. The site is just near the railway bridge and reminds one of the trappy bed of the river at Chas, though here the river bank shows an alluvial stratum 10--15ft high. Here too no gravel section could be seen.¹

This survey, as the first, has not yielded many finds. But the one discoid-like scraper (No. 1), as also the core (No. 2), both from Kopargaon, as well as the flakes (No. 13, 19, 30, 31), particularly Nos. 19 and 30 would leave little doubt that these are artifacts. Examination of their flake surfaces suggest that the technique employed in flaking these was the same or almost identical with the one noticed in microliths from Gujarat and elsewhere.

Are we then to believe that this technique was first known in middle Pleistocene period, and continued more or less unchanged in India through the proto-Neolithic period and Neolithic period right up to the early centuries of the Christian era and later (1000 A.D.), to which period the surface microliths of Central India are assigned?² Further archaeological study of the Godavari and other rivers of Maharashtra might throw some light on this problem as suggested in the previous report, but it is necessary that geologists and palaeontologists should also take it up from their respective points of view.

APPENDIX

Description of Important Finds.

No. 1.

Site.—Kopargaon (KP).

Locus.—Left bank of the Godavari, about a mile from the town, downstream.

Level.—*In situ* gravel, 10 feet above the river-bed.

Material.—Bloodstone (Heliotrope); Condition—Fresh.

Size.— $1\frac{1}{2}$ " \times $1\frac{1}{2}$ ".

Object.—A thick flake, discoid, scraper; underside is the primary flaked surface, with a prominent bulb of percussion, and a flat striking platform. The upper side had deep flake scars, one of which ends in a sharp concave edge. (See Fig. 1).

¹ We would like to thank Mr. S. V. BHOKKAR of Kopargaon and Mr. VAIDYA of Puntambe for their hospitality.

² Cf. BURKITT, *Nature*, February, 10, 1945, p. 185.

No. 2.

Site.—Kopargaon (KP).

Locus.—Same as No. 1.

Level.—Same as No. 1.

Material.—Impure Carnelian (or Sard). Condition—Slightly rolled.

Size.—1.4" × 1½".

Object.—Discoid core. Several flake scars on the under and upper surfaces, leaving a patch of original cortex at either end of the longitudinal axes. (See Fig. 2).

No. 3.

Site.—Kanhgaon (S. 1.)

Locus.—Left bank of the Godavari, opposite the village Sada (after which the abbreviation S.).

Level.—*In situ* gravel.

Material.—Reddish-brown jasper. Condition—Slightly rolled.

Size.—

Object.—Core scraper. Almond-shaped. One dorsal under surface retains patches of original cortex. The upper side has a beautiful central ridge, with flaked facets (slopes) on either side forming an uneven edge, half-way around the periphery. The dorsal side is also slightly flaked along the edge. (See Fig. 3).

No. 4. (S. 2).

Site.—Kanhgaon.

Locus.—Same as in No. 3.

Level.—Same as in No. 3.

Material.—Bloodstone (Heliotrope).

Condition.—Fresh.

Size.—1.7" × 1.7".

Object.—Discoid-like core flake. The butt-end is thick and retains the original cortex whereas the other sides seem to have been flaked. There is a sharp irregular edge on one side. (See Fig. 4).

No. 5. (S. 3).

Site.—Kanhgaon.

Locus.—Same as in No. 3.

Level.—Same as in No. 3.

Material.—Black-white banded agate.

Object.—Core (?) The dorsal side retains the original cortex, so also the flat upper face. Large flake scars, deep on one side.

No. 6. (S. 4.)

Site.

Locus.

Level.

Material.—Green and brownish jasper. Condition—Fresh.

Size.—1.3" × 1".

Object.—Thick triangular flake. Smooth flaked underside; the upper is convex with a midridge and flaked sides, these intersecting with the underside form a fairly sharp edge, which shows signs of use(?). The broad flattish butt-end retains the original uneven cortex. (See Fig. 5).

No. 7. (S. 5).

Site.

Locus.

Level.

Material.—Mottled brown and green jasper. Condition—Slightly rolled.

Size.—1.3" × 1".

Object.—Scraper. Thick rectangular flake with deep cuts on one side, forming an irregular edge. On the rest of the surface scars are shallow and their outlines blunted. (See Fig. 6).

No. 8 (S. 8).

Site. }
Locus. } —Same as in No. 3.
Level. }

Material.—Fleshy, mottled jasper. **Condition.**—Fresh.

Size.—1.2" × 1".

Object.—Thick sub-conical flake. Underside is the primary flaked surface, with a part of the bulb of percussion erased. The upper is flaked on all sides, but has a sharp steeply sloping edge on one side. (See Fig. 7).

No. 9. (S. 11).

Site. }
Locus. } —Same as in No. 3.
Level. }

Material.—Darkish crimson green jasper. **Condition.**—almost fresh.

Size.—1.8" × 1.2".

Condition.—Almost Fresh.

Size.—1.8" × 1.2".

Object.—Pointed triangular piece with rounded base. Slightly flaked on either side. The pointed end has one of its edges sharp. (See Fig. 8).

No. 10. (S. 13).

Site. }
Locus. } —Same as in No. 3.
Level. }

Material.—Chert (Impure flinty rock). **Condition.**—Slightly rolled.

Size.—1.5" × .9".

Object.—Thick flake, underside smooth, flat primary flaked surface. The upper is convex. It has a mid-ridge on 3/4 of its length, the rest of which is cortex. Either side of the ridge is marked by a number of flake scars, the outlines of which are slightly blurred by rolling. The scar on the left near the cortex is rather deep and might have been due to 'step' flaking. The edge around is sinuous and dull. (See Fig. 9).

No. 10.a (S. 16).

Site. }
Locus. } —Same as in No. 3.
Level. }

Material.—Bloodstone.

Size.—1.4" × .8".

Object.—Thick flake. Underside is the primary flaked surface. The upper has an irregular ridge, the sides of which intersecting with the undersurface forms sharp edge. (See Fig. 9a).

No. 11. (S. 19.)

Site. }
Locus. } Same as in No. 3.
Level. }

Material.—Chrysoprase. **Condition.**—Fresh.

Size.—1.4" × 6".

Object.—Crescent flake. Smooth, primary flaked, undersurface. Upper surface has neat parallel flake scars. The steeply sloping side opposite the worked-back side has a straight edge marked by small concavities, perhaps due to use. (See Fig. 10).

No. 12. (S. 20).

Site. }
 Locus. } —Same as in No. 3.
 Level. }
 Material.—Chalcedony. Condition—Not fresh.
 Size.—1" × 0.6".

Object.—Thin flake. Two-edged blade. Smooth, flat, primary, flaked underside. The upper has gently sloping sides, and flaked scars on top. Indented irregular edges. (See Fig. 11).

No. 13. (S. 24).

Site. }
 Locus. } —Same as in No. 3.
 Level. }
 Material.—Agate. Condition—Not fresh.
 Size.—1.1" × 0.4".

Object.—Two-edged thin blade. A little longer and narrower than No. 20, but otherwise similar. (See Fig. 12).

No. 14. (S. 30).

Site. }
 Locus. } —Same as in No. 3.
 Level. }
 Material.—Bloodstone (Heliotrope). Condition—Slightly worn.
 Size.—2" × 1.1".

Object.—One-edged blade. Both the upper and under surfaces bear a number of flake scars. The edge made by the intersection of the sloping upper surface and the steeply flaked undersurface is now blunt. The butt-end has a smooth flat platform. (See Fig. 13).

No. 15. (S. 31).

Site. }
 Locus. } —Same as in No. 3.
 Level. }
 Material.—Prase. Mottled green. Condition—Slightly rolled.
 Size.—2" × 1".

Object.—One-edged blade. Underside primary flaked surface. The upper surface has a sloping hypotenuse-like side, which has now a dull indented edge. The other three sides are thick, particularly the one opposite the edged side. (See Fig. 14).

"TOTALITY"—REEXAMINED FROM THE DRAVIDIAN STANDPOINT.

By

C. R. SANKARAN and A. C. SEKHAR

Abstract :—In a paper published in B.D.C.R.I. Vol. iv Totality was discussed with reference to Kannada. Here we subject the concept to further detailed scrutiny from the point of view of Malayalam, another important language of the Dravidian family and show thereby that SAPIR's conceptions are inadequate as he does not appear to touch, in our opinion, the *basic ideas* of the problem.]

The Totality concept is a fundamental problem of language-structure. Our contention is that this concept must be specially approached from the *psychologicistic*¹ standpoint. E. SAPIR in his monograph on the subject of totality² with special reference to the English language lays stress on some general aspects only. A fundamental idea concerning the question of totality arises as a result of our re-examination of the entire problem from the standpoint of Dravidian, particularly Malayalam.

We define totality as any concrete existent ; e.g. man, goat, tree, book, table, etc.; one can talk of the whole man and parts of the man, the whole table and the parts of the table, etc. This is one set. We have also another set of words expressing notions of space, time and other abstractions which necessarily involve the concept of totality ; e.g. yard, mile, day, month, gram, pound, ripe, fit, etc. These ideas are conceived in their entirety and the fact that there are different units of these two sets of conceptions does not diminish the *psychologicistic* importance of their totalised nature. Thus when we think of a group of ten men, a distance of four miles, a period of six months, etc., we are not thinking of the individual men, miles, or months ; we are having a different mental picture which is an *entire whole* in itself.³

In accordance with our definition of totality we notice a very strongly pronounced tendency in the Dravidian speeches to drop the plural termination whenever it is the intention to bring the totality-concept into prominence; e.g. colloquial Tamil has *nālu* [ālu vañtatu] literally 'four goat came' as opposed to the literary or what is supposed to be more correct : *nālu* (āluḱaḱ vañtaṇa ; paṭtu [nālil] varuvāṇ, literary

¹ The term *psychologicistic* is used here precisely in the same sense as J. VACHEK uses in his paper "One aspect of the phoneme theory" *Proceedings of the Second International Congress of Phonetic Sciences*, Cambridge (1936), 34.

² *Language Monograph* No. 6, 1930.

³ Our *entire whole* is really the concept of *dynamic whole* or *gestalt* which as KÖHLER makes clear, is used both in physics and in psychobiology. See KÖHLER cited by Kurt LEWIN, *Principles of Topological Psychology*, English translation by F. HEIDER, first edition, New York and London, 1936, p. 64. Our contention is that this concept of *dynamic whole* is met with in ordinary everyday speech. At least, the nucleus of this highly specialised concept is present.

⁴ The speech forms relevant to our discussion are enclosed within rectangular brackets.

'he will come in ten days, as apposed to literary *paṭṭu* [nāṭkaṭṭu] *varuvāṇ*, *eṭṭu* [mail] *naṭaṇṭēṇ* as apposed to the literary *eṭṭu* [maṭṭaṭṭu] *naṭaṇṭēṇ*. Of all the Dravidian languages it is in Malayalam that this tendency which we find so markedly pronounced in modern colloquial Tamil pushed to its logical conclusion. Malayalam, an apparently old Dravidian speech, had not shown much divergence from Tamil until the period which is usually denoted as the period of Middle Tamil.¹ This speech is remarkably free from grammatical restrictions, presenting the most simplified structure among at least the well-known literary languages of the Dravidian family (viz. Tamil, Telugu, Kannada and Malayalam). Therefore it is no wonder that in Malayalam the clarity of extreme logic in regard to the totality-concept as we have defined it, is seen.²

When we speak of the condition or state of a thing, the totality-concept is involved. Consider for instance sentences like : *A mango is ripe ; a face is beautiful ; a flower is fragrant ; a task is tire-some ; a person is fit ; a cup of tea is hot ;* etc. Here the whole of the thing is concerned, and the quality (condition) conceived to permeate its whole structure is brought into prominence. The ideas of ripeness, beauty, fragrance, fitness, heat, etc. are modified by means of *modifiers* such as *half*, *very*, *less*, *quite*, *too*, etc. when only the intensity is affected, leaving the totality concept alone.

As totalisers (quantifiers in Sapir's terminology) numerals, constitute a class by themselves ; they do not admit of any emotional overtone in the totality concept. In a previous para, we have already referred to the illogicality—naturally from the standpoint of our conceptions of totality—of the plural ending for the noun totalised by means of numerals. Fractions have also to be considered as totalisers, e.g. *half-rupee* ; *half the time* (cf. also *half-time* as in phrases like a *half-time worker*) ; *half the mango* are all expressions of totality.³

In the Dravidian field we meet with a negative expression for the totality concept ; e.g. Malayalam : *tīre* (L *tīruka*, to finish, to end, cf. *vellam tīre illa*, in the sense of there is *absolutely* no water !) Tamil : *onṇillāte*, without any remaining, (cf. *avaṇ onṇillāte eṭuttukkoṇṭān*, in the sense of 'he took everything without leaving anything behind.'

In our view, the 'all' of universal statements as in 'all men are mortal' is an indefinite totalizer. In the language of mathematical logic, "All men are mortal" or 'Every man is mortal' becomes (x) man (x is mortal). In other words, no matter what x may be, if x is a man then x is mortal. We need not limit our assertion to men. Instead we admit all entities and then employ the conditional form to spare the non-men. Thus (x) man (x is mortal) can be first translated into no matter

¹ See L. V. Ramaswamy AIYAR, *The Evolution of Malayalam Morphology* (1936), p. 2.

² Such a logical procedure is reflected even in modern English on the one hand in forms like a *five-rupee* note, an *eight-mile* tramp, etc. where the plural ending is dispensed with and on the other, in instances like *ten minutes is heaps of time*, where although the plural ending is retained the singular verb alone is used.

³ The tendency in English to drop *a* in expressions like *half a pound*, e.g. *It costs half a pound*, exemplifies this extreme logic. Here we wish to emphasise our view that numerals alone are definite totalisers while forms like *all*, *whole*, etc. are to be considered as indefinite totalisers.

what x may be, x is mortal, and then put in the following well-known technical form of the discipline : (x) (x is a man. x is mortal).¹ (x) (x is a man. is mortal). According to SAPIR "there is no question here of a true totality, explicitly or implicitly definite, but of a class."² We do not agree with him when he says that the same idea is expressed by *every*, *any* and *a*. Emphasis of the 'class' idea by *all* leads to the conception of mankind as a whole and therefore gives *all* in such a context the function of an indefinite totalizer. The following Dravidian (Malayalam) example illustrates our view : *maṇuṣyarellām, ellā maṇuṣyarum marikkum*, gives rise to a totally different mental picture from that of the statement *ōṭō maṇuṣyaṇnum marikkum* or *oru maṇuṣyan marikkum* ('each' or 'a man will die').

In conclusion we lay stress on the fact that a re-examination of the totality concept from the point of view of Dravidian shows that SAPIR's conceptions are inadequate in so far as he does not seem to touch the fundamental ideas of the problem, as we have tried to show in the preceeding paragraphs.

¹ See QUINE, *Mathematical Logic*, New York, 1940, pp. 67-69.

² E. SAPIR, *Totality*, p. 17.

A UNIQUE COPPER COIN OF KING SIRI SĀTAVĀHANA

By

S. A. JOGLEKAR and MORESHWAR G. DIKSHIT

The coin cabinet of Mr. S. A. JOGLEKAR, M.A., LL.B., of Poona, contains a copper coin of King Siri Sātavāhana described below. It was purchased from a dealer in Aurangabad and is a rectangular piece of cast copper, measuring 1.9 cms. x 1.5 cms. It weighs 5.090 grammes.

Obverse : Elephant to right with trunk upraised, legend in field on top [[Rāñō*] S(1)RI SĀTAVĀHA(NO*)]. Below it the symbol laid horizontally.



Reverse : Ujjain symbol consisting of cross and balls surrounded by the Nandipada or Shield.

Though the legend is not complete there is no ambiguity about the reading as the coin is in perfect state of preservation. On palaeographic grounds the inscription has to be assigned to the first half of the 2nd century B.C. as can be seen from the forms of *DA*, *HA* and *SA* which closely resemble those in the Nānāghāt Inscriptions. The rounded form of *VA* very nearly approaches the Mauryan form.

Sātavāhana as the name of a family (*Kula*) first appears in the Nasik Cave inscription of Kṛṣṇa¹ and again in the later inscriptions of Pulumāvi(yi);² King Simuka of the Nanaghat inscription³ bears the *biruda* "Sātavāhana" from which it may be assumed that the family is named after a king of that name, probably an ancestor of Simuka. It appears as a personal name in the image label inscription of Kumāra Sātavāhana.⁴ Literary evidence also points to the existence of a Sātavāhana capital at Paiṭhaṇ in the north Deccan.⁵ The present coin therefore is the first *numismatic* evidence of its use as a personal name, but whether it actually refers to the founder of the dynasty only further research would show.

Palaeography of the inscription, provenance and the fabric of the coin would tend to favour the view that this is as yet the EARLIEST OF THE SĀTAVĀHANA COINS known so far. Only a few square cast copper coins of this dynasty and its feudatories have

¹ LÜDERS', *List of Brahmi Inscriptions*, Appendix to EI., X, No. 1124.

² Lüder's *List* No. 1123 and Myakadoni Inscription (I, 14.155). The Pulumayi of these inscriptions, however, appear to be two different persons, in the same lineage.

³ LÜDERS' *List* No. 1113.

⁴ LÜDERS' *List* No. 1118.

⁵ For various references see RAYCHAUDHARI, *PHAI*¹ 346 ff.

been known. Rapson⁶ published only three specimens of which only one has an elephant on its obverse as in the case of the present coin. The legends on all these three have not been read with certainty and it is not clear whether they were cast or struck. In the excavations at Kondapur, in the Hyderabad State, several square coins of the dynasty have been found; though a complete study of these coins has yet to be made it would appear from the details at present known,⁷ that these are lead coins and much later in date than the present variety.

The present coin is apparently cast at first and then its edges trimmed to bring it to a requisite shape, as can be seen from the sloping marks of the chisel. These factors, therefore, are new to Sātavāhana coinage.

An elephant to right with its trunk upraised and the Ujjain symbol has been a constant feature of later Sātavāhana coinage and seems to have been imitated from earliest times. The fabric of the coin together with the legend leaves us in no doubt as regards its association with the Sātavāhana dynasty. Similarly the symbol of some unknown significance is also inherited from the earliest Punch-marked coins⁸ down to the Later Sātavāhana coinage⁹ and is even copied at the beginning or termination of some inscriptions of the same period.¹⁰

⁶ RAPSON, *Catalogue of Coins*, Andhras and Western Ksatrapas, Nos. 7, 8, and 87 in the catalogue.

⁷ Cf. YAZDANI "Excavations at Kondpur", *ABORI* 22.171-85 and Pl. XV.

⁸ Cf. ALLAN, *Catalogue of Coins*, Ancient India, pp. xxxiv, xciii, xcv, xcvi-xcix, cxlvii.

⁹ Cf. RAPSON, *op. cit.*, p. clxxv. No. 4.

¹⁰ We are obliged to Dr. H. D. SANKALIA for the excellent photographs of the coin that accompany this article and for several important suggestions in the preparation of this article.

ABSTRACTS OF THESES

"THE CULTURAL HISTORY FROM THE VĀYU PURĀNA"

By

D. R. PATIL

A reviewer of the researches on the Purāṇas would at once notice that the genealogical portions of these texts have been more attended to in preference to other portions which form the bulk of their subject-matter. Though for the political history of proto and ancient periods of India these texts offer a good deal of information, as the source material for the cultural history of our past, they are still more valuable. It is with this point of view that the *Vāyu Purāṇa*, generally regarded as one of the most ancient Purāṇas has been treated in the present thesis.

The whole work has been arranged in two parts: (1) dealing with the facts proper of the source material of the Purāṇa itself without any comment or gloss, (2) the interpretation of these facts in the light of the information on the same subject-matter available from other sources such as the Vedas, the Gṛhyasūtras, the early Buddhist and Jain canonical works, Kauṭaliya Arthaśāstra, the Epics, the Dharma-Śāstras etc. The treatment is primarily chronological and herein we have followed the order in so far as it has met with general acceptance. Such a treatment helps to fix the chronological position of the material or topic of the Purāṇa under discussion. A separate appendix, comprising an alphabetical and descriptive list of Tribal and Place names found in the Purāṇa has been added to the Text. The second appendix deals with the institution of pilgrimage in so far as the Purāṇa is concerned.

The first part consists of ten chapters of which the first five deal with the facts of intellectual culture such as Social Organisation, Woman and Marriage, Political Institutions, Religion, and the Yugas and the Systems of Chronology. The last five chapters concern with the facts of material culture viz. Towns, Villages and Dwellings, Dress and Ornaments, Food and Drink, Music and Dancing, War and Weapons, and Flora and Fauna.

CHAPTER I.—*Social Organisation*

Certain conceptions with regard to *social theory* are scattered all over the Purāṇa the most important of which is that of the organic creation of the four-fold society out of the Creator's *corpus*. The concepts of Varṇa, Āśrama and Dharma are so schematically linked together that they make one coherent idea. The conception of Varṇa-Saṁkara puts forth the thesis that society, as time moves on, is not progressing but is slowly receding towards oblivion after which the cycle will repeat itself. There are occasionally references to the term Vārtā probably suggesting an occupational basis for the original differentiation of the Varṇas. With regard to *Brāhmaṇas* the information deals with their claims for superiority, their intellectual activities, their rights and duties at the ritual the most important of which were already in abeyance, their right to receive gifts which right seems to have reached a new level of importance as the volume of references to gifts increases, their activities at Tirthas to which references are still few, and their recitation of Gāthās and Kathās as a means of livelihood. In politics too they wield some influence and some instances occur showing how they risked successfully conflicts with the ruling Kṣatriyas. References to Brahmarṣis, Maharṣis, Saptarṣis, Devarṣis and Rājarṣis have been collected separately to see whether these terms are indicative of their difference in status or are merely synonyms. With regard to the *Kṣatriyas* the terms Kṣattrā, Kṣatriya, Rājanya and Viśāṁ Pati have been noted. The Purāṇa has many references to their intellectual activities such as their interest in the mysteries of higher knowledge (*Brahma-vidyā*) and in *Yoga* and *Tapas*, their knowledge of the sacred Vedas, and their grouping into a separate category of sages known as Rājarṣis. Their relations with Brāhmaṇas have also to be noted. A term Kṣātropetāh

Dvijatāyāḥ occurs to signify those Kṣatriyas and Brāhmaṇas who were closely related to each other by the ties of blood; there is further the instance of the Kṣatriya Bharata adopting a Brahmin Bharadwāja as his son. It has to be noted that this type of information belongs to the dynastic lists of the Purāṇa a factor which is suggestive of its authenticity and antiquity. On *Vaiśyas* and *Sūdras* the information is scanty. The use of the term *Dasyu* occurs in a few cases only in the dynastic portion signifying not 'slaves' but 'enemies.' Here too an archaism is suggested.

CHAPTER II—*Woman and Marriage*

Woman : There is in general a sort of anti-feminism in the Purāṇa. She is regarded as a chattel and is expected to be devoted to her husband. As a mother, however, her status is very much exalted. She enjoys immunity from capital punishment. In the dynastic portion she is found interested in higher studies. The custom of seclusion has not still fettered her freedom of movement in society. There is only one instance of the Suttie in the dynastic lists. There are a number of instances of metonymical names suggesting thereby a form of matriarchial society. Most of these names occur in connection with Rākṣasas, Yakṣas, Dānavas, Gandharvas etc., a fact which has its own significance.

Marriage : There are certain incidents narrated in the Purāṇa indicating that marriage relations were not probably based purely on the conception of sexual morality. All these incidents occur in relation to the kings of hoary antiquity. There is further a reference to the cult of Godharma (i.e. the bull's way of sexual behaviour) which the sage Dirghatamas acquired from Śiva's bull and tried to practise amongst his own relatives. The story is certainly very instructive. There are three instances suggesting the prevalence of the practice of *Niyoga* or levirate all of them being in connection with the very early kings of the dynastic lists. In one of them a peculiar procedure is followed traces of which have been observed in some of the very ancient Dharma-Sūtras.

CHAPTER III—*Political Institutions*

Kingship : Two theories regarding the origin of kingship are suggested in the Purāṇa. The first states that on the people's request Svāyambhuva Manu created the person of the king for their protection and for the regulation of the Dharma. The other theory is derived from the story of the king Pṛthu, the first king of the world. The conception of the king's divinity is also developed showing how a king is but a *corpus* incarnate of the god Viṣṇu. He is also sometimes associated with Indra. The most important duty of the king is to protect the people and the Dharma. The term *Danḍa* occurs as a symbol of royal power. '*Danḍa-nīti*' is also referred to probably signifying 'science of government.' The devolution of kingship generally followed the rule of primogeniture but instances occur showing how the kingdom was divided amongst the sons. In some cases division appears to be nominal and sometimes real. In the former case probably existence of oligarchies is suggested. A particular emphasis is laid on the consecration ceremony of the king without which he could not be considered to be a *de jure* sovereign. The great royal sacrifices such as the *Aśvamedha*, *Rājasūya* and *Vājapeya* are mentioned but their performances were certainly on the decline.

Popular Institutions : The term *Samiti* is referred to only once while the expression *Sabhā* occurs many a time in a variety of senses viz. 'an assembly,' 'a hall of an assembly,' 'royal court,' etc. There is a reference to Kṛṣṇa addressing Akrūra in the assembly (*Saṃsad*) of the Sātvatas. The term *Gaṇa* also is similarly used in a variety of senses, firstly in a collective sense, secondly signifying some sort of organisation and thirdly as a technical term for an organisation. Particularly interesting are the references to Gaṇas of Rākṣasas, Dānavas, Yakṣas, Gandharvas etc. There is also mention of Gaṇas of sages who held a meeting and passed a resolution (*saṃaya*). The term Kṣattri-Gaṇa probably suggests an oligarchic association. The term *Janapada* most often means a 'region' but occasionally also a 'tribe' or 'people.' There are three references to the term *Paura-Jānapada* in connection with the kings Yayāti, Janamejaya and Sagara. Here it appears that by this word a kin of popular organisation is meant.

CHAPTER IV—*Religion*

Saivism : Śiva is the supreme god of the Purāṇa, superior even to Viṣṇu and Brahmā. He is both a benevolent and a malevolent deity. He has many names the most important of which have been collected. There are only four important myths with regard to the god viz. the story of Dakṣa's sacrifice, of how he came to be known as Nilakanṭha, of the origin of Liṅga and of the destruction of the city of Vārāṇasī. Śiva is very often associated with the Bhūtas, Piśācas, Rūdras, Munis, Rākṣasas, Asuras, etc. and sometimes with Devas, Ādityas, Vasus and Siddhas. Most important is Śiva's relation to *Yoga* and *Tapas*. It is in this connection that the various incarnations of Śiva are narrated. The references to each of these *avatāras* are almost schematic and have been stated here in a tabulated form. The last of the incarnations is *Nakulin* or *Lakulin* thus showing that the scheme is a formulation of a theory of *avatāras* by the votaries of the *Lakuliṣa Pāśūpata Sect* on the history of which the list has an important bearing. Though the story of the origin of *Liṅga* occurs in the Purāṇa there is no clear-cut evidence of the actual prevalence of the phallus worship.

Besides Śiva, *Skanda* is the important god of Śiva's family. A story of his birth is narrated. There are, however, references suggesting his closer association with Rākṣasas, Yakṣas etc. probably indicating the primitive features of his early history. *The god Gaṇeśa is absent in the Purāṇa*. There is however, a peculiar reference to the Rākṣasa Gaṇeśa Kṣemaka in the story of the destruction of the city of Vārāṇasī which appears to have something to do with the early history of the god.

Viṣṇu figures less and the only detailed account of him is the narration of his incarnations. The names in the list of his ten *avatāras* are different from those of the standard ten.

There are also stray references to the cult of the *Sun-god*.

CHAPTER V—*Yugas and Systems of Chronology*

The Purāṇa very often refers to and describes *Kalpas*, *Manvantaras*, and *Yugas*. The three together have been made to form a system of chronology. The concept of *Kalpa*, however, is more closely related to the theory of cosmology and a standard formula with regard to the number of *Kalpas* and their duration has still to be evolved. On *Manvantaras* the text is more definite; they are fourteen in number and the three of them viz. Svāyambhuva, Cākṣuṣa, and Vaivasvata Manavantaras are more fully described. If the concept of Manvantaras forms a link between the theories of cosmology and chronology that of *Yuga* is concerned more with the latter. It is in connection with *Yuga* that the calendar calculations and the various divisions of time have been enumerated. *Yuga* is also schematically linked with *Dharma*. It has to be noted that *Yuga* is twice stated to comprise five years and it is emphasised that it is followed only in *Bhāratavarṣa*. The divisions of time are stated in a tabulated form in which *Yuga* is the highest and *nimeṣa* the lowest unit of measurement of time.

The descriptions of the four *Yugas* are more or less imaginary though in certain respects very instructive. Certain events in the dynastic lists are related to the different *Yugas* and have been represented accordingly to see if they admit of chronological verification from other sources.

CHAPTER VI—*Towns, Villages and Houses and Dwellings*

It is a climatic crisis in the *Tretā* age that paved the way for the first communal settlement and human dwellings. Various names of such settlements viz. *Kheṭa*, *Kharvaṭa*, *Choṣa*, *Kula*, *Grāma*, *Pura* and *Durga* (of four kinds) are mentioned. Most of the villages and towns were expected to be situated on or near hills and watersheds; the artificial *Durgas* were an exception. Village boundaries, highways and lanes and streets in towns are referred to together with the ideas on their lay-outs in terms of measurements of distance the various units of which have also been mentioned. There are further stray references to city gates and ramparts, palatial buildings, parks and gardens particularly in connection with the fancifully described cities of Rākṣasas, Dānavas, Yakṣas, Gandharvas etc., found in the geographical chapters of the Purāṇa.

Cave dwellings of Śiva and Yatis are mentioned ; the other kinds of dwellings are : Prāsādas, Bhavanas, Śālās, Goṣṭhas, Hastyaśvarathasālās, Sūtikāgrhas, Sūnyāgāras etc. Viśvakarman is mentioned as the architect of gods' mansions and also as Tvaṣṭā the presiding deity of Architecture, the carpenter, the goldsmith and the maker of gods' *vimānas*. His son was Maya and his wife a daughter of the Rākṣasa Prahlāda. Śiva too is mentioned as the originator of the science of architecture. Roofs, galleries, doors and windows are occasionally referred to as parts of buildings. It appears that houses were frequently liable to catch fire probably because of their wooden construction. Certain rites seem to have been performed when a house was first occupied or its construction was first undertaken.

CHAPTER VII—Dress and Ornaments and Food and Drink

Dress and Ornaments : Nudism is suggested only rarely in connection with Śiva and Piśācas and with Śrāddha in which a class of Nagnas are referred to as taboo. Leaves of trees form the dress of people of Tretā age. In Śrāddha chapters, however, clothes appear as one of the primary necessities of man. Besides leaves of trees as dress for munis, brahmachārins, sarṇnyāsins and for Śiva and his followers we find references to skin garments too as dress of Śiva, Pitṛs and gods. Silk, linen, woollen and cotton clothes are mentioned in Śrāddha chapters. As to shape of garments we have references to prāvāraṇa, upavīta, ācchādāna, and to one garment of Śiva's wife.

Growth of long hair arranged in various braids and knots is mentioned with regard to Śiva and his followers, similarly growth of long beard is suggested in cases of Śiva and king Yayāti.

Ornaments : General references to the use of ornaments are common and the various ornaments referred to are presented in the form of a descriptive and alphabetical list. These ornaments are : *akṣamālā*, *āṅgada*, *dāman*, *ghaṇṭā*, *hāra*, *kāñcanapaṭṭa*, *keyūra kinkinī*, *kiriṭa*, *kunḍala*, *mekhalā*, *mukuṭa*, *śrīvatsa*, *śroṇibandha*, *sūtra* and *valaya*.

Besides, we find use of aromatic powder, such as *gandha*, *dhūpa*, *guggula*, *añjana* and strong perfumes mentioned in Śrāddha chapters.

Food and Drink : Plant world is recognised as the main source of food supply. The legend of Prithvi-dohana and the references in śrāddha chapters bears this out. The names of food preparations and food-stuffs are arranged in the form of an alphabetical and descriptive list. They are : *guḍakulya*, *guḍaudana*, *karambha*, *kardama*, *khaṇḍa-śarkara-vālukā*, *kṛṣāra*, *kulmāśa*, *madhu-maṇḍodaka*, *odana*, *piṇyāka*, *piṣṭaka*, *pṛthuka*, *pūpa*, *saktu*, *saktulāja*, *sarpistila*, *tīla-cūrṇa*, *vyañjana*, *yavāgu*, *yāvaka* and *guḍa*, *śarkarā*, and *tāla*.

Amongst drinks milk and its preparations are common. *Soma* is the drink of gods and Pitṛs. A legend associates it with Soma the eponymous ancestor of the lunar race and with the plant world. *Amṛta* is equally a celestial drink but its power to bring the dead back to life is not still recognised. *Surā* is the drink of Śiva and the Piśācas ; it is tabooed in Śrāddha and is regarded an evil. *Medhira* and *dhūma* are the other intoxicants. Honey and juices of fruits such as of *lakuca*, *jambu*, *ikṣu*, *nyagrodha* are also mentioned.

Vegetarian diet is generally preferred except in Śrāddha chapters and dynastic lists where meat, even beef, is shown to have been used.

CHAPTER VIII—Music and Dancing

The *Gandharva-vidyā* as one of the eighteen Vidyās and the seven *svaras* corresponding to the names of seven Kalpas are mentioned in the Purāṇa. A lengthy digression on music referring to 21 *mūrccanas*, 49 *tālas* and such other technical details occur in Chapter 86.39 ff. The association of music with the ritual—particularly the chanting of the Sāmaveda in the course of one of which the court-bards Sūta and Māgadha were born—and with the Gandharvas, Kinnaras and Apsarasas is noteworthy. Śiva too is associated with music and dance. It is in his nature to sing and dance and his worship is likewise attended with music and dance.

The names of musical instruments, of which an alphabetical and descriptive list is given, are. *Bheri*, *Diṇḍima*, *Dundubhi*, *Gomukha*, *Jharījhara* or *Jhallara*, *Mṛdaṅga*, *Mukha-vādītra* or *Mukha-mardala-vādītra*, *Paṇava*, *Pataha*, *Ranitalusita*, *Saṅkha*, *Tumba*, *Veṇu* and *Vipā*

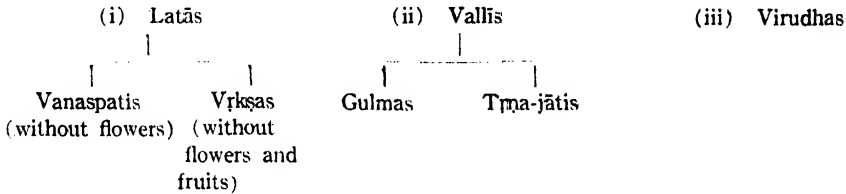
CHAPTER IX—War and Weapons

Unlike the epics the Purāṇa has no picturesque scenes of war to narrate and thus with regard to the actual practice of warfare there is no information from the text. The four-fold army composed of infantry, cavalry, chariots and elephants is mentioned only twice and that too in connection with the descriptions of the Kali age and the Kalki. The dynastic lists show only two instances of horse-riding, while references to chariots are very common. They do not at all indicate the use of elephants in war and elsewhere too such a use is rarely suggested. This means that the lists do not know the employment of cavalry and elephants in war and know only of war-chariots which is indeed significant.

The names of weapons and armour, listed as above, are : *Ankuṣa, Asi, Astra, Bhurbhura, Cakra, Carman, Daṇḍa, Dhruṣa, Gadā, Hala, Khaḍga, Kṣaṭvāṅga, Kulīṣa, Kuśa-vajra, Mudgara, Nakha, Paraṣu, Pāṣa, Paṭīṣa, Sakti, Sankha, Śūla, Tigma, Vajra Varman, Varūtha, and Yantra*. Of these the dynastic lists refer only to Dhanus, Hala and Khaḍga.

CHAPTER X—Flora and Fauna

Some crude ideas regarding classification of plants are discernible from the Purāṇa viz. the plants are three-fold : (i) *Grāmya* (cultivated), (ii) *Āraṇya* (wild) and (iii) *Yajñiya* (those used in the ritual). Elsewhere the classification is more systematic which may be represented thus :



the names of plants, listed as above, are : *Adhakya, Aguru, Akṣotaka, Ambuda, Āmra, Anu, Aśoka, Aśvattha, Atasi, Badari, Balvaja, Bhandi, Bilva, Campaka, Caṇaka, Candana, Dāḍima, Darbha, Devadāru, Drākṣa, Durvara, Falgu, Godhūma, Gṛñjara, Ikṣu, Jamba, Jambu, Japa, Kadali, Kalamra, Kalkaleya, Kapittha, Karambha, Karusa, Kasa, Kasmari, Khadira, Kharjūrā, Kirīṣuka, Kulatthaka, Kurandaka, Kuśa, Lakuca, Lasuna, Lavā, Māsa, Masūra, Matulunga, Mudga, Nāga, Naktamala, Nilāśoka, Nipa, Nispava, Nyagrodha, Padma (Ambuja, Kamala, Kumudā, Utpala, etc.), Palāṇḍu, Palaśa, Panasa, Pārijāta, Parusaka, Pāṭala, Patola, Plakṣa, Priyaṅgu, Puṣkara, Saka, Sala, Salamala, Sarala, Sarjaka, Savinaka, Slesnatāka, Syamaka, Udara Udumbara, Uśira, Tala, Tamāla, Taṇḍula, Tila, Tilaka, Varṇśikarṭra, Vāṭa, Veṇu, Vibbhitaka, Vikankata, Vrihi, and Yava*. The only plant mentioned in the dynastic lists is *Aśvattha*.

Animal kingdom : The four-fold classification of animals into *Andaja, Udbhija, Jarāyuja* and *Svedaja* is known to the Purāṇa. Besides there is another two-fold classification into *Grāmya*, (domesticated) and *Āraṇya* (wild). Amongst domesticated animals the most important are the cow and the horse. The buffalo and the elephant sometimes appear as domesticated and sometimes not. The names of animals, listed as above, are : *Aja, Aśva, Aśvatarā, Avi, Baka, Bhramara, Biḍḍāla, Cakora, Cakravāka, Chāgala, Eḍaka, Gardabha, Garuḍa, Go, Godha, Gṛdhra, Hariṇa, Haṁsa, Hastin, (Nāga, Gaja, Dantin, etc.), Kāka, Kalavinkas, Kapota, Karaḍḍa, Khaḍga, Khadyota, Khara, Kiṭakas (pipilakas), Kokila, Karuṇika, Kūkkuṭa, Kuṇḍhira, Kurara, Kūrma, Lava-tittiras, Mahiṣa, Matsya, Mayūṣika, Nāgas (Sarpas), Nyariku, Parsata, Prsata, Ruru, Śakunta, Sarabha, Sārika, Sārasa Simha (Śārdula) Śuka, Sva, Tarakṣu Ulūka, Uṣṭra Vānara, Varāha, Vardhinasa, and Vyāghra*.

It should be noted that the sanctity of the cow is not fully established in all parts of the Purāṇa. Cows, horses and goats are the only animals referred to in the dynastic lists.

Chronological bearing of the Material

For want of space it is not possible to summarize here the chronological discussion in the second part. What the whole of this chronological discussion tends to indicate is that

the source material of the Vāyu Purāṇa may be assigned to three broad categories such as : (i) *The Archaic Survivals* which are coeval in point of time and contents with the similar material found in the Vedic literature. 500 B.C. may be safely considered to be the lowest time-limit of this material ; (ii) *The Ancient material* of the Purāṇa aligning itself with the early Dharmaśāstras, the early Buddhist and Jain canonical literature, the Arthaśāstra of Kauṭilya, the Manu-smṛti, and the earlier portions of the Great Epic Mahābhārata. Broadly speaking, the beginning of the Christian era may be supposed to be the lowest chronological terminus of the material ; (iii) *The Accretions* or the mass of material that has been incorporated into the body of the text. Most of this material falls in line with the Smṛti works, the later portions of the Great Epic etc. It should be noted that this material does not cross the chronological line demarcated approximately by the date 500 A.D.

The important facts of the material that has been so assigned may now be stated accordingly :

(i) *The Archaic Survivals* : (a) Some of the stories of the Kṣatriya-Brāhmaṇa conflicts, such as between Vasiṣṭha and Satyawrata, Triśaṅku and Viśvāmitra ; Brāhmaṇas and king Janamejaya, and between king Kārtavīrya Arjuna and the Bhṛguṣ. (b) Kṣatriya-Brāhmaṇa relations such as a few instances of Kṣatriya-Brāhmaṇa marriages, and the case of the Kṣatriya Bharata adopting a Brāhmaṇa as his son ; and the reference to Kṣatriyan-Brāhmaṇas (Kṣātropetāḥ Dvijatāyaḥ). (c) The references to 'Dasyus' in the dynastic lists which indicate that the term does not there mean 'slaves' but signifies 'enemies.' (d) The few references indicative of slavery particularly in the case of Viśvāmitra's child sold for 100 cows. (e) The crude facts of the incidents suggestive of the primitive institution of marriage not essentially based on the conception of sexual morality and the peculiar cult of Godharma advocating sexual license. (f) The few instances of the custom of Niyoga or levirate, particularly the odd procedure followed in one of them traces of which have been observed in one of the early Dharma-sūtras. (g) References to the use of chariots, the plough (Hala), and the bow in war particularly in connection with the dynastic lists. (h) Cow as means of exchange.

It should be noted that this is the class of material that exclusively belongs to that portion of the Purāṇa which contains the dynastic lists.

(ii) *The Ancient Material* : (a) Some of the references to the term Vārtā reminding of similar references in Kauṭilya Arthaśāstra and the Manu-smṛti, signifying 'a branch of learning' such as probably the science of economics. (b) Incidents indicating the influence of Brahmins, particularly of the Purohita, in political matters. (c) References suggesting that women could proceed on higher studies and could move freely in society as is evidenced by the earlier portions of the Great Epic. (d) The theories regarding the origin of kingship, one of which is probably earlier than a similar one found in the Mahābhārata. (e) The references to 'Daṇḍa' and 'Daṇḍaniti' similarly found in the Arthaśāstra, the Mahābhārata and the Manu-smṛti. (f) The instances indicative of the existence of oligarchies for which evidence has been found in the Jātakas, in the Arthaśāstra, in the notices on India of the early Greek writers and in the Great Epic. (g) The references suggesting existence of popular institutions such as the 'Sabhā' 'Samsad' and the 'Paura-Jānapada' evidence for which has been found as in case of oligarchies. The same can be said regarding the Puranic use of the expression 'Gaṇa.' (h) One of its 'table' of units of measurements of distance which is rudimentary as compared with the one found in Kauṭilya's Arthaśāstra. (i) Its cruder references suggestive of town-planning less systematic as compared with Kauṭilya (j) Part of its information on the non-vegetarian diet which begins to appear as a taboo in the Manu-smṛti. (k) One of its conceptions regarding classification of plants which is cruder and more elementary than the one suggested by the Manu-smṛti and Caraka. (l) Two out of the three modes of classification of the animal world suggested in the Purāṇa are ancient as compared with Caraka who flourished in the first century A.D.

(iii) *The Accretions* : These make the real bulk of the Purāṇa. It is here that the Brahmin redactor has made his influence felt. Most of the Purāṇa information on social organisation, excepting that already noted above, belongs to this category. Our Purāṇa, however, is comparatively more moderate in regard to its claims for the Brahmins than the

Smṛtis and some of the other Purāṇas. The Purāṇa has much more to say with regard to religion particularly śaivism which it openly favours more than it does Vaiṣṇavism on which it has something to say. It should be noted that our text throws a good deal of light on the early history of the Lakuliṣa Pāśupata sect. The table of the twenty-eight incarnation of Siva may help us to bring into limelight some of the ancient propounders of the sect some of whom probably Kapila, Akṣapāda Kaṇāda and Lakulin were the notable ones. That the Purāṇas has no direct evidence on the actual worship of Liṅga is also interesting as is also the fact that the God Gaṇeśa is completely absent in the Purāṇa. This would suggest that even on matters of religion our text is earlier than many of the other Purāṇas, and of the later portions of the Epic. The same can be stated with regard to the information on Yugas and the system of chronology in which our text is less schematic than what the works referred to above are. That the standard ten *avatāras* of Viṣṇu are not so found in the Vāyu but are known to the later epic and to many of the other Purāṇas is also significant. These are only some of the salient facts that suggest that on the whole even this mass of accretions would not push the Purāṇa down to a period later than the approximate date 500 A.D.

We have so far dealt with the positive evidence of the Purāṇa ; but certain aspects of its negative evidence particularly on its facts of material culture deserve to be noticed. It should be noted that it is this material of the text which is valuable evidence might be deemed to be more reliable ; for with regard to this kind of facts the hand of the tamperer is least likely to be felt. No redactor would unnecessarily fill in or insert facts of this kind in the accounts of ancient tradition as there would be no incentive for him to do so. This is apparently one of the reasons why we do not find facts of the material culture of a later age at all associated with the ancient dynastic lists. It is this portion of the text that contains the least information on the facts of material culture and wherever they contain them they only indicate their hoary antiquity. The only plant mentioned in connection with ancient kings is the Aśvattha, the most celebrated of the plants known to the R̥gveda ; the only animals referred to in the incidents about them are the cows, the horses and the goats, the most favourite animals of the Vedic sacrificers and their ancestors ; and it has to be further noted that in these dynastic lists no indication of the use of cavalry in war is found and instances suggesting horse-riding are too few as compared with the employment of horses for war chariots. It is, again, in connection with this portion of the Purāṇa that the buffalo appears as a wild beast still to be domesticated.

Thus the earliest conditions of culture, or the archaic survivals, as we have called them, that have been traced in the Purāṇa are intimately connected with its genealogical lists and with the incidents narrated therein. This is a finding which is striking in itself for it confirms, to a certain extent, the authenticity of the information contained in them so far as the facts of material culture are concerned ; and there is reason to believe that to that extent the Purāṇa has handed down to us the political history of the ancient dynasties in their true cultural setting. The case is, however, different when we examine the facts of intellectual culture. It is in this connection that the lists have suffered a great deal from the subsequent handling of their material. The references to the great kings of the past who are stated to have protected the Varṇāśrama-dharma and went along the traditional path of Dharma and their glorification as givers *par excellence* are the points in instance.

It appears that the dynastic lists have also suffered from omissions. For example, it is reasonable to expect that the original tradition as was handed down by the ancient bards must have contained picturesque descriptions of war that were fought by the kings of yore, in the manner in which we find them in the Greek poems of Homer and in our epics, the Mahābhārata and the Rāmāyaṇa. It is this topic that has always inspired and nursed hardic poetry of ancient times ; but our Purāṇa has not handed down to us any of such picturesque scenes of war ; and the descriptions of 'war' found in it are too fanciful and scanty to compare them with the Greek poems of Homer and the epics.

In some cases, it appears, the Purāṇa has confused the lists. According to Pargiter there were various reasons that caused this confusion. The cultural aspect of the lists indicates that one of these reasons might be that some of the ruling families probably converted

themselves into oligarchic or republican clans and their 'genealogies' it would be no longer possible to narrate. It is probably for this very reason that real difficulties occur in tracing the genealogies of the Vṛṣṇis and the Andhakas. The same observation may probably be made as to why, in a few cases, the Purāṇa stops narrating further the 'genealogies' of certain kings, as in the case of king Uśinara.

The negative evidence of the rest of the Purāṇa (i.e. the portion other than the dynastic lists) is likewise instructive. None of the "archaic survivals" noted above are to be found here. This is an additional proof with regard to the authenticity and antiquity of the material of the dynastic lists.

It must be stated here that our observations on relative chronology are bound, in the nature of things, to remain tentative. Still their value for the purposes of cultural history need not be overlooked. We often hear of the palaeographical evidence in the dating of an undated inscription and its value in absence of a contrary evidence has rarely been denied. Such is the case also of the typological evidence of pre-historians. Our findings have been made in that manner and should be judged from that point of view.

The Purāṇas, in general, contain a good deal of valuable information on ancient geography of India and some of them devote a number of chapters to this topic. The Vāyu Purāṇa is one of them. One of the appendices, added to the Thesis gives an exhaustive and descriptive list of the tribal and place names in the Purāṇa arranged alphabetically. There are certain names which on general assumption belong purely to the domain of mythology but some scholars have tried to identify even these names. It would be prejudging an issue to exclude them for the present and they are thus included in the Appendix.

The names of tribes and places in this Appendix are too numerous (about 1500 of them) to be discussed with regard to the identification of all of them in the present work, which is not a treatise mainly on geography. It is clear that such a discussion should form a separate enquiry altogether and we hope to undertake it in the near future. The identifications of some names are, however, attempted in the present work only to see how far the Vāyu information admits of verification in the light of similar information available from the other sources.

On the institution of pilgrimage too most of the Purāṇas offer valuable information as does the Vāyu Purāṇa. This information too has been presented by way of a separate Appendix. As compared with the later portions of the Great Epic, the Smṛtis and some of the Purāṇas our text is less enthusiastic and elaborate in the matter. There is only one reference to a holy place of pilgrimage in the dynastic lists in connection with the king Gādhi and that too in a mythological setting, a fact which further attests our conclusion regarding the lists. Though the idea of the sanctity of water was known to the Vedic people it appears that the institution of pilgrimage as such was first started by the Buddhists or Jains and later on it became common to all the faiths in India. The Brahmins took it over probably in the early centuries of the Christian era as the contemptuous references in the Manu-smṛti would suggest. In the Vāyu it has been adopted particularly in its Śrāddha chapters.

Though political history is not the prime concern of our investigation we have not completely by-passed it, for occasionally we have had to deal with incidents that pertain to political history. Hence a brief survey of the political history of the most ancient past of India as has been handed down in the dynastic lists has been given in the Introduction.

It is hoped that if similar investigations are carried out on the other important Purāṇas a mine of valuable information on the cultural history of our past will thus be made available.

IRANIAN IDEAS OF IMPURITY—AN ANALYSIS OF A PHASE OF ZOROASTRIAN RELIGION

By

H. P. MEHTA

The ideas and notions pertaining to ceremonial purity (referred to in this thesis as impurity) and purification, exhibited in the religious texts of later Zoroastrianism, reveal on an analytical examination, a consistent system with a coherent etiology. The main task of the thesis, therefore, lies in the presentation of this system in all its details and features. The dissertation, however, is not directly concerned with the description of the ritual of purification and such description is availed of only for the purpose of investigating the psychological basis underlying the ritual. The ideas and notions relating to the ritual have been analysed into their significant conceptual elements with a view to arrive at general features and principles guiding the behaviour of the Iranian mind as reflected in the texts towards the situations regarded as impure in life. The thesis may, therefore, be considered a scientific exposition in terms of present-day concepts of the particular phase of the Iranian religion denoted by impurity and purification. It is intended to serve as a ready collection of material for workers in psychology and sociology of religion in their task of general correlation of data on impurity and allied matters found among different races and religions.

The Iranian ideas and practices find a good deal of corroboration from similar ideas and practices prevalent among other civilized religious communities as well as among the primitive tribes. The Iranian system is regarded by this writer as typical of all such ideas and practices and as affording a suitable basis for a comprehensive study of the problem. The Jewish and the Hindu ideas and practices compare very favourably with the Iranian but do not seem to match the latter in the intensity of their obsession nor in the logicity of their framework. Another reason for considering the Iranian ideas as suitable for the study of the general problem lies in the fine syncretism of ceremonial and ethical elements which characterized later Zoroastrianism of Sasanian and post-Sasanian periods (200 A.D. downwards) during which the ideas developed and flourished.

The most outstanding feature of the Iranian system of impurity and purification is its foundation upon a well-defined and consistent etiological basis. This etiological basis is derived from the beliefs about demoniacal and angelic "beings" and their activities. Among such "beings", the one most directly and intimately associated with the phenomenon of impurity is the *Druj Nasu*. The entire fabric of the ideas and practices involved in impurity and purification is, as it were, built upon the devilish activities of the *Druj Nasu* and her associates, and the counter activities directed against them. The various situations of impurity and acts of purification were actually conceived by the Iranian mind in terms of the presence and activities of these "beings." Impurity may conveniently be equated with *Druj Nasu* dynamics.

The nature and function of the *Druj Nasu* has been clearly described in the texts. She is mentioned as one of the creatures of *Angra Mainyu*, the Evil Spirit in Zoroastrianism. She is shaped like a raging fly and attacks the creatures on this earth with legs and tentacles sticking out, droning ceaselessly. Any creature or object of this world which she thus captures and possesses is said to be impure or defiled and continues to remain so, as long as she dwells in it. Impurity may, therefore, be defined as the state of an object characterized by the possession by the *Druj Nasu* and other evil creatures.

The most important occasion which invites the attack of the *Druj Nasu* and her associates is at the time of death of all creatures, human beings and animals, created by *Ahura Mazda*, the Good Spirit in Zoroastrianism. The death of wicked creatures, human beings and animals, created by *Angra Mainyu*, the Evil Spirit, does not occasion the attack of the *Druj Nasu* and hence does not cause impurity. Rather, the *Druj Nasu* and her companions are believed to have dwelt in their bodies while they were alive and have to quit it in despair when they die. The wicked creatures who were impure while alive become pure by dying. After

capturing the dead body, the *Druj Nasu* proceeds to attack other creatures and things which may be either in direct contact with or in close proximity of the dead body. Hence all creatures and things touching the dead body or within the limit of defilement of the dead body become impure and polluted. The *Druj Nasu* is capable of attacking objects in contact up to the eleventh degree.

The force of attack of the *Druj Nasu* and consequently of the degree of pollution depend upon several factors relating to the nature of death. In the case of human beings, the force of attack varies directly as the social order to which the deceased belongs, the priest being defiled the most. In the case of animals, it depends upon the utility of the animal and the degree of holiness attached to it. The range of defilement is also governed by environmental factors such as the place or the spot where the death took place. The texts mention several places in this connection, such as house, roof of a house, ground-floor of a house, door between two rooms, passage between two houses, col, fire-temple, terrace of fire-temple, hut, forest, field, tree, main branch of a tree, side branch of a tree, bridge, boat amidst seas, etc.

The *Druj Nasu's* attack in case of natural deaths is instantaneous. She is, however, taken unawares by unnatural deaths. Her attack is delayed by as many as five hours when the death is caused by accident, treachery, witchcraft, suicide or legal execution.

Next in importance to death, though not in the intensity of the attack, comes menstruation as an occasion of impurity. The *Druj Nasu* completely possesses the woman the moment she commences her menstrual period. While residing in her, this demoness of impurity is ready to attack anybody or anything that the woman touches or even speaks to or looks upon. Hence the woman in this condition has to be segregated till she is completely free from menstruation. During the period, despite the segregation and the strictest observation of rules, the menstruating woman cannot help defiling quite a large number of objects and persons, and hence every woman has to get long cumbersome ceremonies (*Dawazdeh Homast*) performed for her so as to atone for the sins committed unwittingly.

Child-birth too comes within the scope of the *Druj Nasu's* malign activity. The woman who has delivered a child must observe a long period of segregation lasting for about three weeks followed by purificatory rituals. The woman who has delivered a still-born child becomes an easy target of the *Druj Nasu's* attack and has to observe very strict rules of purification.

Anything that comes out from the body, while it is alive, causes the situation of impurity, inviting the attack of the *Druj Nasu*, though in a lesser degree. Urine, excreta, saliva, breath, blood, seminal discharge, hair, bone, nail, skin, flesh, etc. coming out of the body and having separated from the body defile persons as well as objects that are in contact. Thus the occasions of impurity being brought about by normal and abnormal physiological states and functions of the body are numerous and occur very frequently.

Great efforts have to be made to drive away the *Druj Nasu* from the person or the object that she has captured and possessed. The adoption of various measures towards this end is termed "purification" or cleansing. The demoness of impurity, clever monster as she is, puts up a very stiff resistance against the fight given by the measures till she is defeated and has to quit the person or the object. The measures adopted are of various sorts, such as recital of spells the look of a dog, washing with bull's urine (*Gômēz*), washing with water, fumigation with incense burnt in fire, etc. Amongst these, the most effective is washing with bull's urine done in a special way which constitutes the most important ritual of purification (the *Barashnūm*).

Besides the use of these physical means, superphysical agencies are ever busy purifying the numerous defiled objects and the whole world in general which is being constantly polluted by situations of impurity which are not under human control. Among these agencies are *Ahura Mazda*, the Good Spirit and several archangels (*Amesha Spentas*) and angels (*Yazatas*) as well as mythological creatures such as the three-legged ass (*Khar-i-Talāta*). *Ahura Mazda*, though occupying the position of supreme deity in Zoroastrian pantheon is also subject to impurity in the form of diseases created by his adversary *Angra Mainyu* and applies to his ministering angels for help in purification. The three-legged ass cleanses the water of all the oceans in the world by urinating in the sea of *Vouru-Kasha*.

Centred round these occasions of impurity, a large variety of objects may be noticed as responsible for the causation of impurity. These have been termed as the bodies causing impurity or the defiling bodies. They comprise the corpses of human beings, dogs and all creatures created by the Good Spirit, the parts of such corpses (*nasā*) and all matter coming out of living body, such as blood, saliva, breath, urine, faeces, flesh, teeth etc. All wicked persons and the non-Zoroastrians as well as the evil spirits (*the Daevas*) are also included in the list. Even the path traced by the movement of corpse or any other impure body is conceived as capable of communicating pollution to objects that traverse the path. These objects may be regarded as primary bodies causing impurity. Secondary and subsequent degrees of such bodies may be recognised in corpse-bearers, animals that eat *nasā*, human foetus, corpse of a pregnant woman, water of a pool used by non-Zoroastrians, etc.

Similarly, numerous categories of things may be mentioned as subject to the influence of impurity, and these have been termed as objects affected by impurity. The objects most susceptible to the influence of impurity are the holy elements, fire, water and earth. The bodies of the Zoroastrians and all their material belongings and articles of use as well as the articles used in religious worship are all affected by impurity. Even the sun, the moon, the planets, trees, plants and seeds are considered to be subject to defilement.

A large part of the system under consideration consists of what may be termed the casuistry of pollution and purification. The casuistry is the natural outcome of the obsessional preoccupation of the Iranian mind, which is evidenced by the citation in the texts of an enormous number of cases of pollution, and prescriptions of purification. Meticulous keenness and rigorous logic have been displayed in the determination of the situation of impurity and the purificatory measures that should follow. The determination of the nature and the extent of pollution is governed by such factors as the place where the occasion of impurity takes place, the nature and the condition of the object affected by impurity, the size and the position of the defiling body as also of the defiled object, the direction of the defiling body in relation to the defiled object, the time of the day and the season of the year during which the situation of impurity takes place, the manner in which it takes place, the duration of the contact of the defiling body with the defiled object or objects, the number of times the contact occurred with the defiling body, the movement of the defiling body etc. Pollution is also dependent upon psychogenic factors such as fear, expectation, intention, volition etc. on the part of those involved in the situation of impurity or purification.

The casuistic system, though very rigid on the whole recognises the limitations and, in certain cases, the impossibility of carrying out the ideas and rules to their logical extremes. Moreover, it also takes into consideration the exigencies of peculiar situations and circumstances in determining the measures of purification. The system may best be looked upon as a complex of ceremonial ideas, ethical notions, logical thinking, scientific knowledge of the nature of things, considerations of exigency and regard for natural limitations as applied to the thorough application of ceremonial ideas.

Purification of defiled objects consists generally of two processes : (i) the disposal of the dead body or the *nasā* which has become a source of impurity (ii) the cleansing of the objects that have come into contact with or within the sphere of impurity of the dead body or the *nasā*. As for example, when a Zoroastrian dies, his corpse is disposed of into the *Dakhma* (roofless circular structure of stone) and the persons, the house and the other objects which have come either in direct contact with or within the sphere of impurity of the corpse are cleansed. The methods employed in purification present a large variety of processes and the use of several animals and objects, such as washing with water, fruit juice, bull's urine etc. ; sprinkling water, bull's urine etc. ; rubbing with earth, sand etc. ; burying in the earth ; drinking bull's urine ; kindling fire ; fumigation with incense ; showing the defiled object to a dog ; reciting spells ; offering sacrifice ; removing or throwing away a part of the defiled object (as in the case of water of a pond or a well) ; spreading out the defiled object (as in the case of fire wood) ; killing the defiled person (as in the case of a man who has carried a corpse alone) etc.

The dog plays the predominant role in the ritual of disposal and cleansing. The *Druj Vasu* is repelled from the person or the object she has possessed by the very look of the

dog. The "looking of the dog" (*the sagdid*) is the condition precedent to any other act of purification. Recital of spells may either accompany other measures of purification or may be performed alone. The use of urine in Iranian purification has been particularly great. Though the urine generally prescribed is that of the ungelded bull (*Gômêz*) the urine of a human couple, who have married incestuously has been mentioned as permissible in case of urgent need. The *Gômêz* is taken orally as well as applied externally. Washing is done several times, number three and its multiples being the figures usually prescribed for the purpose.

Purification as a process of expulsion of the evil of impurity lays great stress upon order and method in the execution of the prescriptions of cleansing of polluted objects and the disposal of bodies causing impurity to their proper places. Order and method must be observed both in time and place while undertaking purification. The slightest breach of the laws of purification constitutes not only a heinous sin on the part of the purifier, but also threatens the ruin of the entire country. Importance is attached to the head and the eye in purification. Whereas the head is a special seat of pollution, the eye is the organ by which the purifying animals can repel the *Druj Nasu*.

The occurrences of impurity and the positive acts of impurity and purification have been appraised in terms of sins and good works. Here, too, the Iranian mind has displayed the same type of obsessional logic. An almost mathematical system has been evolved for the evaluation of the sins of impurity and the good works of purification. Eight degrees, corresponding to the measure of weights prevalent in the period, have been recognised in the appraisal of both sins and good works. Each act of pollution or purification is assigned its degree and measured in terms of weights, so that the aggregates of both sins and good works can be determined at the death of an individual. The award in the next life to the soul is based on a mathematical computation of sins and good works performed by the individual in this life. Three days after death, when the soul is called to account, the sins and good works are weighed against each other in the scales and the soul is ordered to heaven or hell or to an intermediate place known as *Hamistakân* according as the good works or sins preponderate or are exactly equal. According to one authority even a small difference equal to the weight of a single hair of eyelashes may decide the fate of the soul and send it to either heaven or hell. The computation of sins and good works is made complex by several factors such as punishment, atonement, renunciation, age of the individual, imputation of sins and good works done by a child to its parents, performance of rituals, compensation, mercy, etc.

The connotation of sin, it must be noted, extended to occurrences of impurity over which human beings could have little or no control. Hence the life of the Iranian society of the period represented by the texts must have been constantly beset with sins. Punishment was administered by means of whips by priests. It was meted out more with a view to save the soul and as a measure of atonement rather than as a punitive measure. The supreme penalty of death was also given with the same view of safeguarding the interests of the soul of the perpetrator of sin, because only by dying were such sinners believed to become pure. Another motive in taking life for the sins of impurity seems to have been the protection of society from the great contagion which the sinner had acquired. A pestilence would overwhelm the society, were the sinner left alive. Measures of atonement included, besides performance of good works and ceremonials, such measures as killing of noxious creatures, etc.

The ideas of impurity and the prescriptions of purification as laid down in the texts find some measure of corroboration from the social history of the Iranians under the Achaemenian, Parthian and Sasanian periods, just as much as they do from the social and religious life of the Parsis to-day. From the very beginning, fire, water, earth and other elements which are highly susceptible to impurity have received great honour and sacrifice from the Iranians. Defilement of fire by contact with corpse and other dead matter was strictly forbidden from the most ancient times. Although the practice of burying the dead in the earth was prevalent throughout the Achaemenian period, that of burning the dead was prohibited ever since the days of Cyrus. The obsession against defilement of water is clearly

evidenced by the refusal of Tiridates, the ruler of Armenia, to travel by sea to Rome when invited by Emperor Nero. His brother Vologeses I, the Parthian monarch declined the invitation for the same reason. Instances of prevention of the earth from defilement are found in the rules against spitting, blowing the nose or relieving in open spaces etc. Xenophon reports that even King Cyrus was keen on enforcing the rules against the spitting or blowing the nose in the public. The evolution of the *Dakhma* itself testifies to the Iranian dread of defiling fire and earth by corpse. Slaying of noxious creatures by the Magi priests, as a measure of atonement for sins, has been reported clearly by Herodotus.

The study of impurity and purification from various religions, both primitive and civilized, should prove very fruitful in understanding some significant forces of the mind, their growth and manifestations. Herein lies the importance of a thorough historical and anthropological study of purity and purification. Freud has already shown the resemblance between the mechanisms employed by some of the neurotics and the practices of purification among the primitive societies. A historical study of impurity proves that in all its manifestations in various societies, repulsion from impure objects has been the chief characteristic of the diverse phenomena of impurity. But the investigation of Freud suggests that behind the external manifestations of repulsion there also lie the forces of attraction. Hence it is hoped that a comprehensive study of impurity from religion, anthropology and psychology would enable us to go to the very roots of the phenomena concerned.

REVIEW

A Descriptive Catalogue of the Sanskrit and Prākṛta Manuscripts. (Bhagvatsimhaji Collection and H. M. Bhadkamkar Collection) in the Library of the University of Bombay, Books I and II (Volumes I-IV), 1944, compiled by Prof. G. V. DEVASTHALI, M.A., Pp. 877 ; Price Rs. 20/- (per set).

The importance of the Descriptive Catalogues of Sanskrit Manuscripts, especially to the student of Sanskrit literature has now been well recognized. Such catalogues are indispensable to persons interested and engaged in the research work in several branches of Sanskrit and Prakrit literature. Since the publication of Dr. AUFRECHT's monumental '*Catalogus Catalogorum*' in 1903, numerous lists and descriptive catalogues of Sanskrit and Prakrit manuscripts deposited in several manuscripts libraries all over the world have come to light and rendered valuable assistance to every student of Sanskrit literature working on the history and chronology of Sanskrit works.

The present volume under review comprising two voluminous books of 877 pages in all contains a description of 2408 Sanskrit and Prakrit (including Vernacular literature) manuscripts deposited in the two Collections viz. (i) Bhagvatsimhaji Collection and (ii) H. M. Bhadkamkar Collection in the Library of the University of Bombay. These 2408 manuscripts are divided into fourteen broad divisions as under :—

(i) Linguistics (nos. 1-128); (ii) Literary Science (nos. 129-69); (iii) Medicine (nos. 170-324); (iv) Astronomy, Mathematics and Astrology (nos. 325-548); (v) Architecture (nos. 549-53); (vi) Veda and Vedic (nos. 554-939); (vii) Dharmaśāstra (nos. 940-1239); (viii) Epics and Purāṇas (nos. 1240-1392); (ix) Stotras (nos. 1393-1717); (x) Tantra (nos. 1718-1949); (xi) Philosophy (nos. 1950-2135); (xii) Kāvya (nos. 2136-2318); (xiii) Vernacular literature (nos. 2319-73) and (xiv) Jain literature (nos. 2374-2408).

The Introduction by Dr. P. M. JOSHI, the University Librarian, gives the history of the two Collections showing how the manuscripts came to be the part of the Bombay University Library and how the work of preparing the Descriptive Catalogue of these manuscripts was undertaken by the University authorities early in 1936.

The work of preparing the present catalogue was carried, as stated in the Preface, under the guidance and close supervision of Professor H. D. VELANKAR and the compiler, Prof. DEVASTHALI, has followed the principles adopted by Prof. VELANKAR, his *Guru*, in his *Descriptive Catalogue of the Sanskrit and Prakrit Manuscripts in the Library of the Bombay Branch of the Royal Asiatic Society*. Prof. Devasthali has spared no pains in making the catalogue as exhaustive and informative as possible by supplying detailed information regarding the works and the authors. A number of catalogues already published, several editions of the work concerned and various articles published in different Oriental journals have all been made use of during the course of the description of every manuscript. Analysis of certain works such as the *Añjanānīdāna* of Agniveśa (no. 181), the *Cikitsāsāra* of Gopālādāsa (no. 200), the *Vaidyāmṛta* of Moreśvara (no. 248), the *Ośadhikalpa* (no. 271) and a few others has enhanced the utility of the catalogue. In the case of rare and important works and commentaries we find list of authorities quoted by the authors and commentators given by the author of the present catalogue. Lastly the three indices viz. (i) Index of Authors, (ii) Index of Works, and (iii) the Index of Authorities have considerably added to the utility of the Catalogue.

We congratulate Prof. G. V. DEVASTHALI upon this achievement and very much appreciate the labours he put in this work during the past six years when he was engaged on the preparation of the catalogue. Our felicitations are also due to the University authorities who decided to undertake the cataloguing of the manuscripts in the University Library and we hope that the two Manuscript Collections which have now been catalogued will form a nucleus of a large manuscripts library of the University of Bombay in the years to come.

M. M. PATKAR.

SPRING (1946) ANNOUNCEMENTS

Panipat : 1761 by T. S. SHEJWALKAR. About 200 crown 4to pages, and Nine Maps.

A reconstruction and restatement of a turning point in history. Partly based on important new material filling in the gaps, as well as on correct interpretation of the old material, revealing a fundamental grasp of all the sources and a close study of the geography of the battle-field, leading to a revaluation of the sources as a result. The nine maps included have been specially prepared, for the first time, illustrating the course of the famous battle.

Anekartha-tilaka of Mahipā, critically edited by M. M. PATKAR. About 150 royal 8vo pages.

This is a homonymous Sanskrit lexicon composed in the last quarter of the 14th century A.D. and is critically edited for the first time on the basis of four manuscripts, the oldest of which was written in Samvat 1490 or A.D. 1434. This is the first of a series of unpublished Sanskrit lexicons taken up for critical editing by the Institute as a contributory study towards a Thesaurus Linguae Sanscritae.

Historical Grammar of Old Kannada by G. S. GAI. About 250 royal 8vo pages.

This important dissertation is based entirely on a study of the inscriptions belonging to the 8th, 9th and 10th centuries A.D., and seeks to find out the actual state of the Kannada language at a definite period of its history. This study was undertaken from the point of view of diachronic linguistics, and is the second scientific attempt in this direction, continuing the work of Dr. A. N. Narasimha of the University of Mysore, who deals only with the language of the 6th and 7th centuries A.D.

Cultural History from the Vayu Purana by D. R. PATIL. About 320 royal 8vo pages.

While political or dynastic history has been reconstructed from the Puranic tradition, and a number of works have been published on various aspects of religious or social life of India, this is the first systematic attempt at collecting and interpreting "cultural history" from the rich Puranic sources, and for the purposes of this study, the oldest Purana according to generally accepted standards has been subjected to a scientific analysis. The book is valuable not only for Indian Culture, but also for a critical edition of the Vayu, and consequently for other Puranic material.

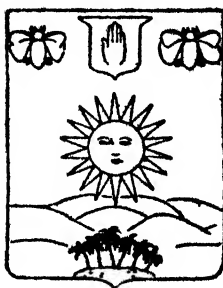
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Issued on 15th July 1946

MIDDLE DRAVIDIAN MORPHOLOGY

By

C. P. SANKARAN & A. C. SEK HAR

[ABSTRACT—Here for the first time the morphological features of Middle Dravidian are studied from the view-point of Bhāskara Ravivarman inscriptions.]

[List of important abbreviations used in this paper :

B. R. :	Bhāskara Ravivarman inscriptions
10th :	Tenth century inscriptions
10th (Kan.) :	Tenth century Kannaḍa inscriptions
EMM.	Evolution of Malayālam Morphology
GL.	Grammar in Līlātilakam
GOKI.	Grammar of the Oldest Kanarese Inscriptions
TAS.	Travancore Archaeological Series
BDCRI.	Bulletin of the Deccan College Research Institute.]

INTRODUCTION

The following study has a two-fold purpose: (1) an analysis of Middle-Dravidian Morphology from the standpoint of the earliest West Coast inscriptions and (2) an attempt at the determination of the question of the time of Bhāskara Ravivarman from a linguistic point of view. The second purpose cannot be fully served unless a thorough study is made of contemporary inscriptions from adjoining areas and more especially, of dated inscriptions from the West Coast going down at least to the end of the twelfth century, if not later, for purposes of comparison. Our evaluation from a historical point of view of the linguistic data presented in this paper should be reserved for a separate treatment after the publication of our study of the dated post-tenth century inscriptions. But all the same the historical importance of the materials found in the following pages is not diminished as these materials prove clearly that the inscriptions belong to a period when the speech of the West Coast had not acquired an individuality of its own, but was just beginning to develop some features which in course of time became so firmly fixed as to make the speech unintelligible to even the speakers of the neighbouring dialects.

We have chosen sixteen inscriptions dated in the reign of Bhāskara Ravivarman for this study, which more or less form an

exhaustive list of the published Bhāskara Ravivarman inscriptions. We have only chosen those inscriptions which mention Bhāskara Ravivarman's name; we have omitted all those which do not do so, although they may reasonably be assigned to Bhāskara Ravivarman (such as for instance, the Tirukkaḍittānam inscription published on p. 40 of the TAS).

Regarding the vexed question of the possibility of there being two Bhāskara Ravivarman, we have not to offer any comment in this paper. For our present purpose we have taken all the inscriptions as belonging to one and the same monarch; for, from a linguistic point of view, they contain practically the same materials, even though some of them may be separated from the rest by half or even one century.

According to the astronomical calculations of L. D. Swamikannu PILLAI (which has been confirmed by later findings of scholars like A. S. Ramanatha AIYAR and others) Bhāskara Ravivarman began his rule in A. C. 978. Regarding the extent of the kingdom of this monarch we need, for the present purpose, quote only what Gopinatha RAO says in his introduction to the Bhāskara Ravivarman inscriptions which he has published in Vol. II of the TAS. "The inscriptions have been gathered from Tirukkākkarai, in North Travancore, Peruneyil and Tirukkaḍittānam near Changanāṣeri and Mūlikkaḷam near Ālvāy. We also know that during the reign of the king Bhāskara Ravivarman grants were made to the temple at Tirunelli. From the situation of these places one can say that the kingdom of Bhāskara Ravivarman should have extended from at least Wynaad in the north to Changanāṣeri in the south, a distance of 1° 56' and therefore comprised the whole of the Malayālam country consisting of the British Malabar Districts, the Cochin State and more than half at least of the present State of Travancore. He can therefore be no petty chieftain but might be rightly considered to be a suzerain lord of the Malaināḍu. This surmise is borne out by the fact that there ruled under him as Provincial Governors a number of minor chiefs, Nāḍuvālis, such as those of the Puṛaikiḷānāḍu, Kuṛmporaināḍu, Veṇṇolināḍu, Vēṇāḍu and Nanruḷaināḍu".

The inscriptions are all (?) in the Vaṭṭeḷuttu script of the tenth century variety. It is well-known that the Vaṭṭeḷuttu characters of this period form the best specimen of this system of writing and that gradually the characters degenerated and became, by the end of the seventh century, so illegible that great confusion arose in the writing which ultimately led to its abandonment and

the substitution in its stead by what has been called the Arya eḷuttu. Since our immediate concern here is only the date of the Bhāskara Ravivarman inscriptions from a palaeographic point of view we need not go into the history of Vaṭṭeḷuttu beyond what has been stated above. A comparison of the characters usually employed in the Bhāskara Ravivarman inscriptions (of which the Cochin and the Tirunelli Plates provide a good sample) with those of the Māmbaḷli Plates will show that they are almost identical though the Bhāskara Ravivarman script shows a little more development and therefore the B. R. inscriptions are to be assigned to the same period. The evidence supplied by the language along with this fact lends support to the view taken by Gopinatha RAO, A. S. Ramanatha AIYAR and others that Bhāskara Ravivarman reigned in the tenth-eleventh century of the Christian era

The Vaṭṭeḷuttu script, like the Tamil alphabet, has no characters for the voiced variety of the consonants and the sibilants. This raises an important problem in connection with the interpretation of the linguistic material contained in the inscriptions studied. Were the voiced sounds and sibilants actually used in pronunciation or not? From the fact that a large number of Sanskrit words are found in the inscriptions, we must presume that Sanskrit learning had become very popular in Kēraḷa at least by the tenth century ; and we must further presume that the pronunciation of Sanskrit words found in the inscriptions could not have been much different, although they were in many cases a good deal changed in their representation in Vaṭṭeḷuttu. In other words, it would be reasonable to presume that the orthographical changes in Sanskrit words were only conventional.

It has been asserted by many scholars from the time of CALDWELL onwards that medial consonants in Dravidian are given only a voiced value in their pronunciation and what is represented in medial positions in the Tamil-Malayāḷam group with the characters for the unvoiced plosives are usually voiced in cultured speech. CALDWELL called this phenomenon 'the convertibility of sonants and surds'. In accordance with this theory the usual practice among scholars has been to represent all the medial consonants with their voiced variety in transliteration. But our observation of the colloquials of Tamil-Malayāḷam and our laboratory investigations incline us to question the validity of the convertibility theory and its practical applications. We should anyhow point out here that to write 'togaimarabu' (GL, p. 52) is going a bit too far in a region of conjecture. Experimental phonetics alone can give a satisfactory solution for this problem.

We have therefore thought it safer to transliterate the Vaṭṭeḷuttu symbols into their exact Roman equivalents without using the symbols for the voiced consonants in medial positions. We must in this connection refer to the opinion recently expressed by P. S. Subrahmanya SASTRI that medial consonants were not voiced in Tamil prior to the 13th century of the Christian era and that later on they came to be given a voiced value. (See *Historical Tamil Reader*. Annamalai University Publication, p. XX, 1945). Since his evidence is a very slender palaeographic peculiarity and since it is far more dangerous to speculate about the nature of the spoken language of the past than the actual investigation of the present living speech we cannot set any store by this opinion, although our method of transliteration is justified by it.

Phonemic Variations.

Certain definite tendencies which had set in in the speech of the West Coast prior to the tenth century and had taken firm root by that time were responsible for the evolution of new speech-forms, which in course of time came to be recognised as different from the rest of the Dravidian dialects. This new speech had for a long time, it appears, no special name, and even the author of *Lilātilakam*, who is out to establish the claims of the speech of Kēraḷa as a new language, refers to it with different terms (like, Tamil, Kēraḷa Bhāṣā, and Bhāṣā) on different occasions. The term Malayāḷam itself seems to be a very late development.

Although *Lilātilakam* refers to the leading phonetic changes in Malayāḷam, the author of this most interesting work seems to be, like Jacob GRIMM, "anything but a phonetician, and sometimes says things which nowadays cannot but produce a smile". Witness for instance his utter innocence of a knowledge of accent when he says that a dental *ṇ* and alveolar *n* makes a difference in the meaning of the collocation *kāṇkanāvil*, which with the dental becomes *kāṇkaṇāvil* and with the alveolar *kāṇ kanāvil*. He fails to see that the difference in meaning is brought about not by a change in the point of contact but by a shifting of the stress from *n* to *k*.

The following important phonemic variations occur in the B. R. and 10th cent. inscriptions. (It must be specially noted that practically no distinction is made in the Vaṭṭeḷuttu script between the long and short *e* and *o*. It is also very interesting to note that the symbol for dental *n* is frequently interchanged with that for the alveolar variety which may probably indicate that much distinction was not made between the two sounds in their pronunciation in the tenth century.

In the examples given below the first letter or letters represent the variation whereas those on the right side of the oblique stroke represent the usual sound.

responsible for the differentiation of Malayālam from the parent language. The fact that *Lilātilakam* does not mention that nasal assimilation is found in regard to Sanskrit words also may be due only to the conservative outlook of the author; the inscriptions under study clearly indicate that this change had become a well pronounced tendency in the West Coast speech and had affected both native and loan-words with equal force. (For a detailed account of nasal assimilation, see 'A Primer of Malayālam Phonology,' by L. V. Ramaswamy AIYAR; also see our paper on *Colloquial Malayālam*, BDCRI, VI (1944) p. 52).

Other phonemic tendencies should also be noted. For instance, the dropping of phonemes both initial and final, *aṣ* in *ari* < *arici*, and *āṇṭu* < *yāṇṭu* (< *iyāṇṭu*) ? (10).

Under each head of our study we have given only a few selected examples by way of illustration of each statement, and we have only touched upon some of the most important aspects of Middle Dravidian morphology as revealed by the Bhāskara Ravivarman and tenth century inscriptions considered here. We must point out that there are several other aspects also such as verbal composition, semantic transference, etc. which we have not dealt with in this study.

To make our study as useful as possible we have given parallel forms from Kannaḍa inscriptions of the tenth century. We have taken these from the Ph. D. thesis of G. S. Gai, which is now in the Press and an abstract of which has appeared in the BDCRI, Vol. VI. Part I. We are indebted to Gai for kindly allowing us the use of a few of the materials gathered by him. We have selected only a few examples from his thesis under each head just in accordance with our practice in regard to the B. R. and 10th century Malayālam inscriptions, and we have often chosen the examples having the closest resemblance to those from the West Coast inscriptions; also, we have not retained the detailed classification of Gai.

Except the relevant speech-forms, the rest are put within brackets. The meaning is printed within inverted commas. Only the bare minimum of context is given. In giving the meaning English syntax is not scrupulously adhered to, in order to make the meaning of the form under discussion clear. In regard to diacritics, we have followed the usual practice (as found in the *Tamil Lexicon*, for instance), but representing the retroflex continuant with two dots below *l*. We have not thought it necessary to mark final alveolar *n* (except in the texts of the inscriptions) because usually the final *n* is only alveolar. Dental *n* we have left unmarked.

NOUNS

Nature of the stems found in the inscriptions studied :

- (i) Substantives not analysable into root and suffix-morpheme-words :

Exs. B. R. & 10th : *ari* (*arici*) 'rice', *āṇ* 'male', *āṇtu* 'year', *ucci* 'noon', *ulaku* 'world', *ūr* 'people of a village' (derived from the original meaning 'village'), *etir* 'opposite', *kalaiṇṇu* (a measure), *kari* 'curry', *kātu* 'forest', *kaccam* 'agreement', *kūttu* 'drama', *koṭi* 'flag', *nāl* 'day', *nātu* 'place', *nāli* (a measure), *nel* 'paddy', *ney* 'ghee', *pakal* 'day', *paṇi* 'work', *poli* 'interest', *pon* 'gold', *porul* 'provisions', *pulli* 'rules', *vilakku* 'lamp', etc. etc.

10th (Kan.) : *aṁgāḍi* 'shop', *tuppa* 'ghee', *toṁṭa* 'garden'.

- (ii) Stems formed from verbal roots : (a) by the addition of one suffix :

Exs. B. R. & 10th : *vāḷkkai* 'rule' from *vāl* 'to rule', *celavu* 'expense' from *cel* 'to go', *kalivu* 'end', from *kalī* 'to end', *pōḷku* 'waste', from *pō* 'to go', *ulavu* 'ploughing' (in the sense of cultivation) from *ulu* 'to plough', etc.

10th (Kan.) *elge* 'growth' from *eḷ* 'to grow', *arita* 'knowledge' from *ari* 'to know' etc.

- (b) from the past tense of the verb : ex. B. R. : *koṭṭi* 'drummer' from *koṭṭu* 'to beat the drum'.

- (iii) Substantives from existing substantival stems :

Exs. B. R. & 10th : *Cirumarrappulaikkār*, 'the people of *Cirumarrappulai*, *Uttirakanattār* 'those of the *Uttirakanam*', etc.

10th (Kan.) : *baḍatana* from *baḍa* 'poor, weak'.

- (iv) Substantives from the past and future declinable participles of verbs (with gender suffixes if any) :

B. R. *irukkumatu*, 'that which is', *perumatu* 'that which gives', *nāṭuvāḷumavar* 'he who rules the country', *cānticeyyumavar* 'those who perform the *pūjā*', etc.

10th : *vilakkumavakal* 'those who prevent', *paraiyumavakal* 'those who say', *mūttavan* 'elderly person', *koṇṭatu* 'that which was obtained' etc.

10th (Kan.) : *alidon* 'he who destroys'.

Substantives from numerals :

B. R. : *oruttan* (9), *mūvar* (5), *nālvar* (7), *pantiruvār* (15),
munṇūrruvār (14), *aṇṇūrruvār* (9), *aiyāyirattavar* (9), etc.

10th : *nālonru* (2) ; *iruvar*, *mārronru*, *pinonru* (3).

10th (Kan.) : *paṇṇirbbār*, *ayvadimbar*, etc.

Formation of words from Sanskrit loanwords : ▽

Since the *Vaṭṭeḷuttu* characters in which the inscriptions are written lack the symbols for the voiced variety of the consonants and sibilants, most of the Sanskrit loanwords are necessarily modified in their representation, except a few like *Tulām* which can be represented with the *Vaṭṭeḷuttu* symbols. (See the introduction for a discussion of the problem this raises). The general rule in regard to the modification seems to be the simplification of conjunct consonants by dissolving them into their components which are then represented with their nearest equivalents in *Vaṭṭeḷuttu* ; e. g. *Accuvati*. But sometimes the words undergo further phonetic changes ; e. g. *Miriccika* < *Viścika*. (cf. Kannaḍa 'punṇame'). Syllables were sometimes omitted in the course of borrowing ; e. g. *Māpāratam*. Changes of Sanskrit words in tenth century Kannaḍa are not so numerous as in the Tamil-Malayāḷam group of that period because the Kannaḍa script was richer in symbols.

GENDER

In the period which we have termed Middle Dravidian, the general rule in all the cultivated Dravidian dialects seems to have been that gender follows the rational sex-differentiation, except in the case of animals which are classed under the neuter gender. The gender suffixes are :

B. R. : Masc. -*an*, -*ān*, -*on*

Fem. *nil*

Neut. -*am*.

10th : Masc. -*an*

Fem. -*ai*

Neut. -*am*, -*ai*.

10th (Kan.) : Masc. -*an*, -*am*, -*om*, -*āta*, -*ātam*.

As in Kannaḍa the gender-distinguishing suffixes are found only in the case of -*a* stems, whereas stems ending in -*i* and -*u* and consonants have no suffix or termination in the nominative singular. It is interesting to note here that the oldest phase of Malayam has no substantives ending in -*a*, which is so characteristic of Modern Malayalam.

Examples of stems without any suffix or termination :

B. R. :

Masc.	<i>niḷal, paṇi, perumāl.</i>
Neut.	<i>ceṇkōl, nel, ney, nāl, verrilai, kūttu, ari</i> <i>(arici), kōṇil, turuvaṭi, eḷuttu, etc.</i>
10th : Neut.	<i>ney, ari, kuṭi, naṭai, nālī, paṛai, etc.</i>
10th (Kan.) · Masc.	<i>oḍeya, tamma.</i>
Neut.	<i>aṁagaḍi, tōṁta, biṭṭi.</i>

Loan words : As in Kannaḍa, these are treated as native words in adding gender-suffixes :

Exs. B. R. & 10th : Masc.	<i>Pārkaṛaṇ Iravi Varman. Śrī</i> <i>Vallabhan Kōṭṭi. Nārāyaṇan, Kiriṭṭan, etc.</i>
Neut.	<i>Kaliyukam, cannaṇam, tāṇam, aṇupantam,</i> <i>paraṭai, etc.</i>

Stems without suffix : *pūmi, tantati, Accuvati, etc.*

10th (Kan.) : Masc. *Ajasutan, Kannaran, etc.*

Fem. *Nāgiyabbe.*

Neut. *aṇityam, adhikam, palam, etc.*

Without suffix : Masc. *Amōghavarmmadeva, Gāmuṇḍa, etc.*

Fem. *Mahādēvi.*

Neut. *pūje, sthithi, etc.*

NUMBER

Malayāḷam, like the other cultivated Dravidian speeches, has only two numbers: singular and plural. The singular may be the substantive with or without the gender-suffix or case-termination. No distinction is made between native words and loanwords in the formation of the plural. The honorific plural is very commonly used in the case of the names of important personages.

The suffixes for the plural are :

B. R. : *-ar, -ār, -avaral, -kal, -ōr.*

10th : *-ar, -ār, -mār.*

10th (Kan.) : *-r, -gaḷ, -ar, -kkaḷ.*

(a) *Simple stem in the singular :*

B. R. & 10th : Masc. *potuvāl, cuvāmi, etc.*

Neut. *paṛitai, pūmi, miḷi, nāl, nālī, ūr, celavu, etc.*

10th (Kan.): Masc. *oḍeya, tamma*, etc.

Fem. *prāṇavallabhe, Mahādēvi*, etc.

Neut. *tuppa, aṅgāḍi*, etc.

(b) *Stems with gender suffix :*

Masc. -an. B. R. : *kaṭavan, pāṭutānnumavan, perumutiyan*
iṭaiyiṭan, ulpāṭan, kārālan, etc.

10th. : *kaṭaviyan, pāṭutānnumavan, mūttavan*, etc.

10th. (Kan.) : *magan*.

-ān B. R. : *Issuppu Irappān, Perumutiyaṅ* etc.

-on, ōn : B. R. *Koḷvon, ceyyiccōn*, etc.

Neut. -am :

B. R. : *pirasātam, kaccam, tāṇam, kaliyukam*, etc.

10th. : *kalam, oḷukkam*, etc.

10th. (Kan.) : *paṇam, daṇḍam, kulam*, etc.

PLURAL

-ar, -ār, -mār :

Masc. B. R. :

kaṭaviyar, ūrālar, iṭaiyiṭar, āṭṭaikkōlyar, kaṇattār, tiruk-
kōyiluṭaiyār, potuvālmār, etc.

10th. *kaṭaviyar, ūrālar, iṭaiyiṭar, ūrār, potuvālmār*.

10th. (Kan.) : *aḷivar, Ādityavurmarasar*, etc.

kaḷ, gaḷ :

Masc.

B. R. : *ṇaṭikal, āṇmakkaḷ, kottikaḷ, uvāccakaḷ*, etc.

10th. : *cātukkaḷ, paraṭaipperumakkaḷ*, etc.

10th. (Kan.) : *gāvundagaḷ, udarigaḷ*, etc.

Fem.

B. R. *peṇmakkaḷ*.

10th Kan. *Ṇāgeyabbeāḷ*.

Neut.

B. R. : *kuṭikaḷ*.

10th. : *avakaḷ*.

10th. (Kan.) : *samvatsarangaḷ*.

-or, -ōr.

10th *mūttor*.

10th. (Kan.) *baḷidōr*.

HONORIFIC PLURAL

Masc.

B. R. : *Pākkaraṇiravivarmar*, *kōvilatikārikal*, *nāṭuvāḷumavar*,
kaṭavar, *aṭikal*, etc.

10th. : *tēvar*, *nāṭuvāḷumavar*, *paṭṭārakar*, etc.

10th. (Kan.) : *Tailaparasar*, *Ahavanabbadēvar*, etc.

As in Kannaḍa, only the suffix *-kal* is found in the case of the neuter. It is interesting that Kannaḍa progressively dispenses with *-ār* and comes to show a partiality for *-ar* which ousts the *-ār* forms completely by the 10th century. It has therefore been assumed that *ār* is earlier than *ar*. (See *Gōki* p. 115; *Bdcri* VI, p. 60.) This assumption may be tenable so far as Kannaḍa is concerned, but in the Tamil-Malayāḷam group both the forms are met with in the Middle Dravidian period in more or less the same contexts as they are today; for, certain words can take only the *-ār* suffix (e. g. *ūrār*) whereas others can take only the *-ar* suffix (e. g. *ūrālar*).

DECLENSION

Stems ending in *ā*, *i*, *u*, and *ai* as well as stems ending in consonants are met with in the inscriptions studied.

THE NOMINATIVE CASE

The nominative singular in all the three genders has no case ending; the stem itself or the stem with the gender suffix added forms the nominative case. The plural is formed by adding the pluralising suffixes, *-ar*, *-ār*, *-mār*, *-kal*, and *-or*.

(a) *The stem as the nominative singular :*

As already noted, it is of great interest to the student of the history of Malayāḷam that in the earliest available inscriptions the *-a* ending of nominatives, which is so characteristic of Modern Malayāḷam is not to be met with. This supports the view held by Professor L. V. Ramaswamy AIYAR that *-ai* is the antecedent of Malayāḷam *-a* and that *-ai* was first reduced to *-a* in medial positions (as in colloquial Tamil) in words like *amacca* (which, incidentally occurs side by side with *amaicca* in the earliest dated inscription; viz., the Kaviyūr inscription of Kali era 4051) and that this change then gradually spread to final positions also. (See GL, pp. 14 and 15).

-ā stem :

B. R. :	Neut.	<i>uttiraviḷā</i> (8)
10th :		nil
10th (Kan.) :		nil

-i stems :

B. R. :		
	Masc.	<i>cuvāmi</i> (9)
	Neut.	<i>neyi</i> (5)
		<i>pūmi</i> (7)
		<i>utaraikkulī</i> (7)
		<i>mīlī</i> (7)
		<i>nālī</i> (7)
10th :		
	Neut.	<i>ari</i> (3)
10th (Kan.) :		
	Masc.	<i>permmāṇaḍi</i> , <i>Ajavarmma Setṭi</i> , <i>Atri</i> , etc.
	Fem.	<i>Mahādēvi</i> .
	Neut.	<i>aṁgāḍi</i> , <i>Kayi</i> .

-u Stems :

B. R. :		
	Neut.	<i>Kiḷiṭu</i> (9)
		<i>Celaru</i> (13)
10th :		
	Neut.	<i>tiruvamirtu</i> (1)
		<i>nālonru</i> (2)
		<i>eḷuttu</i> (3)
10th (Kan.) :		
	Neut.	<i>ārppu</i> , <i>uppu</i> , etc.

-ai Stems :

10th :		
	Masc.	<i>paraṭai</i> (2)
	Fem.	<i>Āticcanumaiyammai</i> (3)
	Neut.	<i>pukai</i> (1)

Consonantal stems :

Masc. -l :

B. R. :	<i>potuvāl</i> , <i>aṭikal</i> (9).
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10th :	<i>paruṭaipperumakka!</i> (3).	
10th (Kan.) :	nil	
Neut :		
B. R. :		
-r :	<i>etir, tēvar.</i> <i>ūr.</i>	
-n :	<i>pon</i> (4)	
-l :	<i>nāl</i> (3), <i>āṭṭaikkol</i> (6).	
-l :	<i>ceṇkōl</i> (4)	
	<i>nel</i> (4), <i>niḷal</i> (9)	
	<i>cērikkāl</i> (11)	
10th :		
-y :	<i>ney</i> (1)	
-r :	<i>ñāyir</i> (3)	
-l :	<i>nel</i> (3)	
10th (Kan.) :		
-n :	<i>pon</i>	-n ; <i>śaraṇ</i>
-r :	<i>ūr</i>	-t : <i>virōdhikṛt</i>
-l :	<i>okkal</i>	

Stems with gender suffixes :

Masc. : *an*B. R. : *Caṇṇaraṇkōtavarmman* (9)
Maṇukulāticcan (11), *Kārāḷan* (12) etc.

10th :

Tēvañcēnnan (1)
Nārāyaṇakēyavan (2)
mūttavan (2)
piṇonruceyyumavan (3)
pāṭutāṇkumavan (3) etc.

10th (Kan.)

Ācappayyan, Ereyan, magan, etc.-am : *tāṇam* (3) ?B. R. : *Kēraḷam Pōlan*10th : *tāṇam* (2) ?10th (Kan.) ; *atibhumbhukam, pramukham*, etc.

Neut. :	
-am :	<i>taṇṭam</i> (3)
B. R. :	<i>paṇaiyam</i> (7)
	<i>Karumam</i> (7)
	<i>Kaccam</i> (9)
10th :	<i>Kaliyukam</i> (1)
	<i>nūrru-k-kalam</i> (2)
	<i>aimpatin kalam</i> (2)
	<i>kollam</i> (3)
10th (Kan.) :	<i>mānam, anityam, etc.</i>
Plural.	
-ar B. R. :	<i>ūrālar</i>
	<i>uttirakaṇattār</i> (8)
	<i>kaṭaviyar, etc.</i>
10th :	<i>kaṭaviyar</i> (1)
	<i>ūrālar</i> (2)
	<i>iṭaiyiṭar</i> (3)
10th (Kan.) :	<i>aḷivar</i>
-ār, -rnār	<i>Ādityavarमारasar,</i>
B. R. :	<i>seṭṭiyar, etc.</i>
	<i>paraṭaiyār</i>
	<i>tirukkōyiluṭaiyār</i> (14)
	<i>kaṇattār</i> (14)
	<i>potuvālmār</i> (3)
10th :	<i>ūrār</i> (2)
	<i>potuvālmār</i> (3)
-ēr B. R. :	<i>kōyilmanuḷaccēr</i> (9)
-or 10th :	<i>mūttor</i> (2)
Kaḷ B. R. :	<i>cātukkaḷ,</i>
	<i>paraṭaiyumavakaḷ</i> (2), etc.
10th (Kan.) :	<i>gāvunḍagaḷ,</i>
	<i>Nāgayabbegaḷ, etc.</i>
Honorific.	
-ar B. R. :	<i>Pārkkaraṇiraviyarmmar</i> (1)
	<i>Mārttāṇṭar</i> (8)
	<i>Crivallabhaṅkōtaiyarmmar</i> (8), etc.

- 10th : *Paṭṭāraḱar* (1)
tevar (2), *nāṭuvāḷumavar* (2), etc.
 10th : *Tailaparasar*, *Rēvaladēviyar*, etc.
 -*Kaḷ. B. R.* : *Kōvilatikārikal*
aṭṭkal (9), etc.
 10th (Kan.) : *Nāgiyabbegaḷ*.

THE ACCUSATIVE CASE

Only in the case of rationals has the accusative a case sign ; otherwise the nominative form is used as the accusative as well.

The accusative signs met with in the inscriptions studied are :

- B., R. : -*ai*
 10th : -*ai*

10th (Kan.) : -*an*, -*am*. (In Kannada the accusative terminations are used for non-rationals as well).

B. R. : *Peṇmakkaḷai-k-koṇṭa* (1) ; *Kōvattana Marttāṇṭanai* (2) ; *cānticeyyumavarai* (3) ; *paṇimāṇiṭattai* (14) ; *Cirivaiṇṇavarai* (14), etc.

10th : *Paṭṭāraḱarai* (3).

10th (Kan.) : *Gojjiga-bhūpalan-an*, *Pāṇḍiyan-an*, *pattam-an* etc.

It seems that by the end of the Middle Dravidian period the Modern Malayāḷam second case ending -*e* had become so universal that the fourteenth century *Lilātilakam* recognises only the -*e* ending and insists in the commentary that it is marked off from the Tamil -*ai*, pointing out that the augments in forms like *naratte*, *marattiṇe*, *āṇaye*, etc. correspond to Tamil *cāriyai*. (L, II, ii.; GL, 44). Also sūtra II, 14, states that the second case ending is optional for inanimate and non-rational nouns, and that for rationals it is obligatory. "This agrees with the Tamil rule implied in *Tolkāppiyam* in a sūtra in the *Togaimarabu* portion of *Eluttu*:—*uyirtṇai marunkin oḷiyātu varutalum*." (GL, p. 52).

It is interesting, however, that in the inscriptions studied no non-rational or inanimate noun takes the case ending for the accusative. In Kannada the conjunctive suffix -*um* is added to the stem before the accusative termination ; further in view of the fact that in Old Kannada and Middle Kannada there are many instances where the stem itself is used in the sense of the accusative, and that in the colloquials of all the five main Dravidian speeches the accusative is rarely used, it may be postulated that the accusative ending was a rather late development in Dravidian. But this is a very large assumption which requires careful investigation.

THE INSTRUMENTAL CASE

The terminations of the Instrumental case are :

- B. R. : -ā, -āl, -koṇṭu, -ōṭu.
 10th : -āl.
 10th (Kan.): -um, -im, -in, -imda, -imdam, -inda, -imde,
 -inde, -imdam, and -indim.

B. R. :

-ā : *avarā-k-kaṭavappon* (The gold payable by them?) (3)
 -āl : *uṭanpāṭṭāl* (2); *iṭankaḷiyāl* (2); *Kōtai Nāraṇan*
kaiyyāl (4); *arai poliyāl* (7); *munṇāḷi nāḷiyāl* (8);
oṇṇpatināl oṇṇpatin nūrrāl (9); *ivvariyaḷ* (13); *marru ari*
munṇānāḷiyāl (16).

-koṇṭu : *atukoṇṭu* (2); *nūrrunāḷi arikoṇṭu* (8); *verriḷaikoṇṭu* (8)
nālppatinkaḷancu poṇkoṇṭū (16); *Ālakkātu-m-varrinupaṭum*
malaiyum karaiyum koṇṭu (16). (The *koṇṭu* in the second
 example in (16) may be taken as meaning 'purchased'
 also).

-ōṭu : *Pūmiyōṭamañña celavittiliyum* (3)? (-ōṭu may be taken
 in the sense of a 'social' also, as it is clearly used in
 such a sense later on in the same inscription).

10th : -āl : *ippūmiyaḷ* (2); *vevverruvakaiyaḷ* (adverbial com-
 pound-see under Adverbs) (2); *oṇṇpatunāḷi-p-paraiyaḷ* (3)
Accuvati innālāl 'In the day of Accuvati'; (see under
 Functional Syncretism) (3).

10th (Kan.): -im ; *Rāghavan-im, tembalar-im.*
 -in : *olp-in, madēḷi-y-in*
 -inda : *Māmdhātan-inda, olpin-inda.*
 -imda (m) : *Cumcuvimda, olpimdam.*
 -inde and imde : *Kulagiri-bhiṭṭi-y-inde,*
 celar-imde.

-āl and -koṇṭu are the third case endings found in the inscriptions studied, and of these two -āl is the more numerous. The solitary instance of the third case with -ā may be taken as a scribal error only, as there is no ground for postulating that -āl is derived from an earlier form -ā, taking into account the fact that neither Old Tamil nor Old Kannaḍa seems to have this termination for the instrumental. From the contexts in which the termination -koṇṭu occurs, much as in Modern Malayāḷam, it should be supposed that it had its origin in the colloquial speech of the West Coast and

formed one of the many important dialectical peculiarities which separated it from the parent speech.

It is very interesting that the fourteenth century *Lilātilokam* does mention only *-ōṭu* as the third case suffix in the relevant *sūtra*, and *-āl* and *-koṇṭu* are mentioned only in the commentary. The earliest Malayālam inscriptions (belonging to the tenth century) show only a single instance of *-ōṭu*, and that too is doubtful. This amply justifies and lends strong support to the following comment of Professor L. V. R. AIYAR: "While *-ōṭu* and *-āl* are equally important as third case endings in Malayālam, why is *-ōṭu* alone mentioned in the *sūtra* and then described in the commentary as an *upalakṣaṇa*? I suspect that the model of the *Tolkāppiya Colladigāram sūtra* which mentions only *-oṭu* as the third case ending for Tamil though *-ōṭu* and *-āl* were both current, might have influenced the author of *Lilātilakam* who (be it observed here) was a keen student of this Old Tamil grammar and some of its earlier commentaries. It is noteworthy that later Tamil grammars like *Viracōḷiyam*, *Nēminātam* and *Nannūl* mention both *-oṭu* (and *-ōṭu*) and *-āl* (and *-ān*) as equally important (in the *sūtras* themselves)". (GL, pp. 45-46).

THE DATIVE CASE

The terminations for the dative case are :

B. R. : *-k-ku*, *-u-k-ku*, *-in-ku*, *-in-u-k-ku*, *-in-u (-u)*, *-in-nu*.

10th : *-k-ku*, *-ku*, *-in-ku*, *-in-u-kku*, *-in-nu*.

10th (Kan.) : *-kke*, *-ge*, *-gge*.

B. R. : *-k -ku*.

Kōyilkku (1); *makkalkku* (1); *tiruvaṭikkku* (2); *kōyilatikārikalḥku* (2); *nāṭuvāḷumavarkku* (2); *vāḷkkai vāḷumavarkku* (3); *cāntikkku* (3); *Paṭṭarakarkku* (3); *neykku* (3); *Paṭcararkku* (4); *Palārarkku* (5); *taṇṇāḷnālvarkkum uḷḷa* (7) (Here the dative termination followed by the relative participle *uḷḷa* is used to express the idea of possession. See under Functional Syncretism.); *Tirunelli-p-peru-māḷkkku* (9); *ciri Vaiṇṇa varkkku* (13).

-in-ku : *paṇimāṇiṭattinḥku*

-in-u-k-ku : *naṭṭinukku* (2); *ikkaccattil paṭṭatinukku* (3) *-in-u (-an-u)*: *Tiruvakkirattinu* (2); *cāntikkku māpāratattinu* (3) *tiruvamirtinu-n-tiruvakkirattinu-m-oḷḷa* (3); *akkirattinu* (3); *mūṇronṇinu* (3); *kaḷaiṇṇinu* (4); *tiravilakkinu* (5); *Nanṇulaināṭṭinu* (6); *ipponṇinu* (7); *tēvar mā-ṇiṭattinu* (7); *tēvaruḷpāṭaṇum perumutiyānumuṭaiya* (13); *cellāninra-*

yaṇṭiraṇṭinetir (14); *nellinu* (15); *paḷḷittāmatṭinu* (16); *Pirāminar amirtinu* (16); *kārālanu* (12).

–*in-nu* : *ittanṭattinnu* (9); *itinnu* (16).

10th cent.

–*ku* : *avanṅku* (3)

–*kku* : *Paṭṭāraṅkarkku*; *pukaikku* (1); *Īraikku* *Ilāttūkkku* *avakali-tāikkonta*; *tēvarkku*; *pantiraṇṭikku*; *uccikku*; *nāṭuvāḷumavarkku*; *ūrānmaikku*; *Vilatekumavakaḷku* (2); *Paṭṭāraṅkarkku* (*olla pūmi*); *Āticanumaiyammaikku* *Tiruccenkunrūr paṭṭāraṅkarkku* (3).

–*in-u-k-ku* ;

vilakkinukku (1); *iccelavinukku*; *marronrinukku*;

tiruvamitinukku (3).

–*in-ku*

Vēṇāṭṭinku (*atikāraṇceykinra*) (3) (Sec under accusative.)

10th (Kan.)

–*ke* or –*ge* : *Kāsigamge*; *hāḍuvōnge*.

–*kke*, –*gge*; –*kkam* and –*gam*; *dēgulaḷkke*; *nivēdyakke*;

tapōjanakkam; *mattargge*; *sarasijabhavamgam*.

The dative case terminations in the inscriptions studied provide very interesting linguistic material for the student of the evolution of the Dravidian speeches in general and Malayāḷam in particular. The variety of the terminations throws valuable light on the probable part that accent played in bringing about important distinctions in the Tamil-Malayāḷam group of Middle Dravidian which led ultimately to the final separation between these two dialects. From the older form –*k-ku* (proto Dr. * –*kḍ* ?) one finds a steady evolution into –*nu* through the intermediary stages –*inku* and –*inukku* where –*in* is the augment coming after non-rationals and –*u*– represents a development out of the prop sound which comes between *n* and *k* when the accent shifts to *n*. With the full development of this –*u*– we can reasonably presume that the ending –*k-ku* came to be considered as irrelevant for the dative meaning and the dative force of –*nu* began to be emphasized by increasing the accent which ultimately led to the development of the form –*innu*. We are therefore inclined to agree with *Lilātilakam* when it isolates –*innu* as the dative suffix and cannot fully endorse the view of L. V. R. AIYAR that it was a ‘false’ isolation, taking into account

our findings from a study of modern colloquial Malayālam that much confusion exists in the minds of the Malayālam speakers regarding *-inu* and *-innu*, which very often makes itself felt in the prose of careless writers.

(See GL, p. 47 and EMM, pp. 9-10).

THE ABLATIVE CASE

The termination for the Ablative Case is:

B. R. : *mēl ninru*
10th : *nil*

10th (Kan.): There is no ablative case in Kannada.

B. R. : *ippūmi mēl ninru ippon koṭukkapperin* (7). (The meaning of this passage is obscure on account of a gap. This passage may however mean: 'if this gold is not given from this land'.) In the following sentence the instrumental is used with an ablative (or genitive) force:

Līlātilakam mentions all the fifth case terminations current to-day, which shows that they were fully evolved at least some time prior to the composition of this work in about the end of the fourteenth century.

THE GENITIVE CASE

The terminations for the genitive case are :

B. R. : *-uṭaiya, -iṭaiya, -uṭai, (-iṭai), -n,*
10th : *-uṭaiya, -uṭai,*
10 (Kan.): *-a.*
B. R. : *-uṭaiya, iṭaiya :*

Vēnāṭuṭaiya, (1), *Paṭṭarakaruṭaiya* (2); *Maṇaiyuṭaiya* (7); *Perumāliṭiyaiya* (9); *Perumutiyānuṭaiya* (13); *koṭṭikalūtaiya* (14).

-uṭai, (-iṭai) :

Kollarcēriyavarkalūtai (13); *vilākappavarilūtai* (15); *Kōvinnan-kunrappōlanūtai* (16).

-in : *Tiruvōṇattin munney* (3); *Kaṇṇamānṇalattin mēl* (5); *kallin mel* (6); *paṇṭiraṭiyin munnam* (13).

The base without any case termination (or better the nominative form) is also numerously used with a genitive force. Exs. *kīlvaykēlppān (eluttu)* (1); *viḷu (-v-itikai)* (3); *Kōtai Nāraṇan (kaiyyāl)* (3); *Itapaṇ (kalivil)* (6) : etc.

10th :

-*uṭaiya* : *Vēṇāṭuṭaiya* (3)

-*uṭai* : *Śrī Vallabhankōtaiyuṭai* (3).

Without any terminations : Exs. *ūrāla Cēnman* (*kari*) (1) (?) ; *Cirumarrappuḷai Cāttan* (*Kūru*) (1) ; *Potuvāl* (*kaiyyiḷ*), *Cāttan Caṭaiyan* (*eḷuttu*) (3) ; etc.

10th (Kan.) :

-*a* : *Singular* : With suffix -*an* : *Aycanan-a*, *Ereyan-a*.

With glide -*y-* : *tande-y-a*, *Atri-y-a*

Without suffix : *Kakambal-a*, *Kadiyur-a*

With final consonant doubled : *keyya*, *mel-l-a*

With suffix -*in* : *karvv-in-a*

Plural : *kayyar-a*, *kosigar-a*, *idegal-a*.

The sixth case suffixes in the inscriptions studied also show an interesting stage in the evolution of Malayāḷam as an independent speech, as distinct from the rest of the Tamil dialects. Prof. L. V. Ramaswamy AIYAR in his EMM, p. 11, says that the earliest inscriptions of the West Coast show only *uḍe*, *uḍa*, *iḍe* or *ḍe* as the sixth case ending. We must here point out that in not a single instance " *uḍa* or *iḍe* or *ḍe* " is to be found as genitive suffix in either the B.R. or the dated tenth century inscriptions ; and we must, therefore, presume that what the Professor refers to as ' earliest ' are much later in time than the inscriptions under study.

The fourteenth century *Līlātīlakam* mentions only *uṭe* and *iṭe* and not *uṭai* or *iṭai* with the final -*ai*. This proves that the final -*ai* had become obsolete in Malayāḷam by the Middle Dravidian period which fact is borne out by the second case ending -*e* as well. The form -*iṭe* < -*iṭai* being expressly mentioned, seems to have become firmly rooted in the colloquials even as early as the tenth century of the Christian era and gradually seems to have come to be accepted in writing as a variant of -*uṭe* (< -*uṭaiya*). The evolution of the modern -*ṇṭe* may be, as suggested by L. V. R. AIYAR (EMM p. 12), the result of the sandhi change of *ṇ+ṭ* through the weakening of the enunciate before the *ṭ*.

Since -*uṭai* (< *uṭaiya*) as a sixth case suffix is not mentioned in *Tolkāppiyam* and it is mentioned only in *Vīracōḷiyam* it becomes clear that it was a Middle Dravidian development in the Tamil-Malayāḷam group and had probably its origin and maximum currency in the West Coast as is evidenced by the inscriptions under study ; but nothing definite can be said about this problem

in the present state of our knowledge. *-uṭaiya* itself as a genitive suffix was due to the association of an earlier genitive from *-a* with a *kurippuvinaṭai* as suggested by Ramaswamy AIYAR. This assumption is supported by the fact that Kannaḍa has *-ā* or *-a* as genitive suffix in the Middle Dravidian period.

-in as a genitive suffix is not mentioned in *Lilātilakam* although it is to be found in the inscriptions under study and in later literature fairly frequently. This was probably the result of the use of the dative for expressing the idea of possession; (c. f. for instance, *irantāmāntaikketir*). This practice seems to have been current in the Tamil-Malayāḷam group even as early as the *Tolkāppiyam* period and seems to have become fairly firmly rooted by the Middle Dravidian period, although Tamil grammars do not recognise it as such (See L. V. R. AIYAR, GL pp. 48-49). *Lilātilakam* mentions *-n-nu* as a genitive suffix.

The locative *-il* also was sometimes used with a genitive force (as in Modern Malayāḷam), while the use of the base or nominative in a genitive relationship was widely prevalent (which, according to *Lilātilakam* was due to the dropping of the genitive suffix in combination). (See under Functional Syncretism).

THE LOCATIVE CASE

The following are the terminations for the locative :

B. R. :	<i>-il, -uḷ, -akattu, -attu, -talai, -mēl</i>
10th :	<i>-il (-ir), -uḷ, -attu</i>
10th (Kan.) :	<i>-oḷ, -oḷa, -oḷage, -oḷam, -e, -al, -alu.</i>
B. R. :	<i>-il : nagarattil (1); ikkaccattil (3); Tanuvil (5); Iṭapattil cērikkālil (11); ūrālarkaiyyil (9).</i>
<i>-uḷ :</i>	<i>Iṭapattul (3); Makarañāyirruḷ (9).</i>
<i>-akattu :</i>	<i>i-vv-ūrakattu (9).</i>
<i>-attu :</i>	<i>Tirukkaṭittānattu (3); mukkālvaṭṭattu (3) Ilaṅkulattu (7).</i>
<i>-talai :</i>	<i>palakattalai (alakka-k-kaṭavar) (13)</i>
<i>-mēl :</i>	<i>pūmimēl (iṭa-k-kaṭavar) (4)</i>

Without any termination but with final consonant doubled :

Exs. *Muyirikkōṭṭu* (1); *Tulāñāyirru* (3); etc.

The base itself used with a locative force : Exs. *pala-nūrā-yirattāṇṭum* (1); *iruntaruḷiya nāl* (1); *pantirāmāṇtu* (3); etc.

10th :

-il : Eṭṭikkariyil, (Uḷavumaṅkalattavakal) tantatiyil (2).

Ciraikkariyil, (2); Potuvāl kaiyyil; kiḷittil, (3).

- ir : *Ayirūr* (3) (This may be only a scribal error).
 -ul : *Kiṭaṅkuparalul* (2); *Tulāttul*, (*Paṇaṅkāvin*) *kōvilul*,
kōṭṭilul (3).
 -attu : *mukkālvattattu*, *oṭṭitṭeyakālattu*, (2); *Kollattu*, *iruntaruliyeṭattu* (3);

Without any terminations: *nālayirattampattorāmāntu* (1); *avakaḷṭai* (-*k-koṇṭa*) (2); *Miriccikañāyirru* (3).

10th (Kan.): -*ul*, *ol*, *olage* and *alli* are the principal terminations of the locative. Except -*alli* and -*olage*, the other terminations are not separately used as morpheme-words in Kannaḍa. (cf. Gai, BDCRI, VI, p. 61).

- ol* : *bāy-ol*, *Kadiyūr-ol* ;
 -*olage* : *naḍ-olage* ;
 -*al*, -*al-u* : *kayy-al*, *bayal-al-u*
 -*e* : *nadadhyaksd-e*.

-*il* is the seventh case termination which is by far the most numerous in the inscriptions studied here. It is clearly a feature of Middle Tamil-Malayāḷam. Old Tamil does not possess it as a locative ending, whereas by the time of *Viracōḷiyam* and *Nannūl* the locative force of this particle had become so firmly established that these Middle Tamil grammars recognise it as such and *Lilātilakam* also mentions it as the most common locative suffix.

The termination -*ul* found in these inscriptions corresponds to the Kannaḍa -*ol* and possibly this termination was the oldest of all the Tamil-Malayāḷam locative suffixes and -*il* was very probably a development out of this by a phonetic shift; -*ul* > ḍ *l* (through weakening of -*u*) > ḍ *l* (the *l* becoming *l* because of the tongue spreading involved in *u* becoming ḍ) > *il* (which came to be thought the 'correct' form). The change of *u* > *i* through the indeterminate rowel ḍ is a common enough phenomenon in Malayāḷam colloquials but as we are not able to give an example for *l* > *l* in a similar position our suggestion that *ul* > *il* is very tentative and requires careful further investigation.

The termination -*attu* calls for a comment. *Lilātilakam* does not mention it, although it seems to have been much current in the speech and writing of the West Coast as is shown by the earliest inscriptions and literature. It is very popular in the colloquials of all parts of Kerala even today. "The use of *attu* is expressly sanctioned by *Tolkāppiyam Eḷuttadigāram* for bases like *veyil*

(TE, 378), *maḷai* (288), *iruḷ*, (403) *viṇ* (306), *paṇi* 'cold season' (242), *vaḷi* (243). The use of *attu* with a locative force was quite common in Early Middle Tamil-Malayālam. Malayālam inherited this feature and has preserved it wholly down till today, while modern colloquial Tamil has ceased to have it." (EMM, pp. 12-13). What may be the origin of this *-attu*? We suggest that it is possibly derived from *akattu* (which itself may be from proto Dr. **akattul* (!) which occurs as a seventh case ending in the Tirunelli Plates. This is yet another interesting problem for the student of Dravidian Linguistics.

The nominative with locative force is also found in the inscriptions studied as much as in Modern Malayālam, especially in colloquials.

FUNCTIONAL SYNCRETISM*

Functional Syncretism is found in the inscription studied.

Examples :

B. R. & 10th.

Nominative for Accusative :

As already remarked, this is the case for all non-rationals.

Naṇṇuḷainātu vāḷṇnu 'ruling *Naṇṇuḷinātu*' (2); *nantāvilakku celuttumavar* 'those who are meeting the expenses of the perpetual lamps' (3); *ceṃpon koṇṭān* 'he took the gold' (4); *pon koṇṭuvarukil* 'if the gold is brought' (4); etc.

Nominative for genitive :

This is very frequently met with. Exs.: *Kiḷvāykeḷppān eḷuttu* 'the writing of the *Kiḷvāykeḷppan*' *Kōtai Nārāyaṇan kaiyyāl* 'by the hand of *Kōtai Nārāyaṇan*' (3); etc.

Nominative for Locative :

This is also very frequent: Exs.: *pantirāmāṇṭu* 'in the twelfth year'; (3) *Viriccika ṇayiru irupatu cenra nāl* 'on the twentieth day in the month of *Viriccika*' (5); *Kāḷkkarai tān aṭṭi-k-koṇṭa* 'what he bought at *Kāḷkkarai*' (16); etc.

Instrumental for genitive (or ablative) : *aṭiṇāl kiḷḷolla* 'those who are below that' (3).

Instrumental for locative : *Accuvati mnālāl* 'on (in) the day of *Accuvati*' (10th-3).

Dative with uḷḷa for genitive : ' *taṇṇāl nālvarakkum uḷḷa* ' lit. 'that which is to themselves four persons', that is, theirs.

Dative for locative : *Ālakkāṭu-m-avarrinu patum* ' *Ālakkāṭu* and that which is included in them '.

Locative for genitive: *pannīraṭiyil mun vannu* having come before the mid-day *pūja* ' (16) (This may be only a scribal error or editor's error for *pannīraṭiyin*.)

In forms like *Tirukkatittānattu mukkāl vaṭṭam*, *Itapañāyirru Tiruvōṇam*, etc. a possessive relationship is expressed by the locative (or what may be considered as the locative) ending.

ADJECTIVES

Adjectives of quantity and quality are found in the inscriptions studied here. They do not have any agreement with the nouns they qualify in regard to gender or number. The adjective precedes the noun when used attributively and follows it when used predicatively.

Declinable participles, substantives and numerals are also used adjectively by placing them before the nouns they qualify.

Generally speaking, it is sometimes difficult to tell whether a word is to be classed as adjective or not (cf; in this connection, Jespersen, *Philosophy of Grammar*, p. 72ff); and this difficulty is felt all the more in the Dravidian group because the classification done by scholars so far seems to be at times too arbitrary. To take an impersonal example. The *Tamil Lexicon* (published by the Madras University) calls *ulla* an adjective, and gives two examples: *aṅke ulla maṇitan* and *ulla camācāram itu*. Now *ulla* is derived from *ul* which is a verbal root, and therefore it seems to be better to take it as a present relative participle which of course, functions here as an adjective. But this adjectival function, it appears to us, is on a different footing altogether from that of *ulla* in the second example, which is a 'fuller' adjective. The problem of classification, we again emphasise, is a very difficult one; but we should also emphasise the need for following some definite principles for making as unambiguous and descriptive a classification as possible in the Dravidian field, as scholars like Jespersen have done in other fields.

The following words in the inscriptions studied may be classed as adjectives as they *qualify* the substantives which follow or precede.

- B. R.: *ittilu* 'thus much' (<*ittirai* (?) <*uttanai*), *marru* 'other,'
cem 'red,' *āṭṭai*, 'annual' *peru* 'big,' *paḷam* 'old'
- 10th: *mutu*, 'old,' *māl* 'superior.'
- 10th: *nal*, *per*, *beḷ*.

Examples :

- B. R. : *ittilu* : *ivai ittilumullatu* (used predicatively) (3) ;
pūmiyōtamaiñña celavittiliyum (3).
marru : *marronrinu* (3) ; *marreppērppattatum* (6).
marru....mili (7) ; *marru uri munnānāliyal* (16) ;
cem : *cempon* (4).
āṭṭai : *āṭṭai-k-kōl* (6)
peru : *perum paraṃpu* (11) ;
paḷam : *paḷaṅkācu* (7) *paḷam Viḷāṅkāṭu* (7) ; *paḷaṅk-āṇi* (13).
mutu : *mutu (kūru)* (9) ;
mēl : *mēlcānti* (12).

- 10th (Kan.) : *nal* : *naliuta*
per : *per-ggeragalin* ; *piriya keriya*.
vel (bel) : *beḷ-gode*.

Declinable Participles used as adjectives :

Exs. Past : *pirasāticc (aruliya pirasātam)* ; *avirōtattāl*

B. R. & 10th : *paṇṇiṇa (kaccamāvatu)* ; etc. etc.

„ Present : *Kiḷppaṭaināyakam-ceyyinra (Mūrkkāñ-Cāttan)* ; *cellāniṇra yāṇṭu*, etc., etc.

Future : *koṭukkum (ari)* ; *vilakkum (ūrālan)* ; etc. etc.

- 10th (Kan.) : Past : *aḷida*, *āda*, *irdda*, etc.
future : *ōduva*, *paruva*, etc.

(For more examples see under Adjective Participles ;)

Examples of nouns used as adjectives :

B. R. & 10th : *Cittirai Viḷu*, *Caṅkirānti nāl*, *Mūḷikkala-k-kaccam*
Cirumarrappulai Kōtai Nāraṇan, etc. etc.

NUMERALS AS ADJECTIVES

Numerals, both cardinal and ordinal, are used as adjectives by placing them before the substantives ; they sometimes enter into composition with the nouns qualified, when they undergo phonetic changes.

- Examples : B. R. & 10th : *oru (cuvāmiyōṭu)* ; *iraṇṭu (kuṭi)* ;
munṇānāli etc.
iraṇṭām(āṇṭu), *nalām(āṇṭu)*, etc.
10th (Kan.) : *ondu paṇam*, *eraḍu dēgulakke*, etc.
eraḍaneya, *mūraneya*, etc.

PRONOUNS

The pronouns found in the inscriptions under study can be classified as personal, reflexive and demonstrative. These are declined like nouns and, as in Kannaḍa, show gender difference only in the third person of the personal, and in the demonstrative. Also, as in Kannaḍa, the third person pronoun and remote demonstrative pronoun are the same.

It is noteworthy that the initial palatal-nasal *ñ* in the first person pronoun, which is so characteristic of Malayālam, is not to be met with in the Bhāskara Ravivarman or tenth century inscriptions

PERSONAL PRONOUNS

<i>First Person</i>		<i>Singular</i>	<i>Plural</i>
B. R. :			
	Nom.	<i>ēn</i> (? 5)	
10th	Nom	<i>nān</i> (3)	
10th (Kan) :	Nom	<i>ān, nān, ām</i>	
<i>Second Person</i> :	Nil		
<i>Third Person</i> :			
B. R. .	Masc		
	Nom.	<i>avan</i> (2)	<i>avar</i> (honorific) (2)
			<i>avakaḷ</i> (9)
			<i>avaral</i> (14)
	Acc.		<i>avarai</i> (3)
	Instr.		<i>avarā</i> (3)
	Dat.	<i>avaṇku</i> (14)	
	Gen		<i>avarkaḷuṭai</i> (13)
Fem.	Nil		
Neut.			
	Nom		<i>pala</i> (?)
	Acc.	<i>atu</i> (4)	
	Instr.	<i>atukoṇṭu</i> (2)	
	Dat.		<i>avarriṇu</i> (15)
	Gen. or Abl.	<i>atiṇāl</i> (3)	
10th :			
	Masc.		
	Dat.	<i>avaṇku</i> (3)	
	Neut.		
	Gen		<i>avakaḷ</i> (2)

10th Kan.:

	Masc.		
	Nom.	<i>ātam</i>	
	Instr.		<i>avarim</i>
	Dat.		<i>avargge</i>
	Gen.	<i>ātana</i>	<i>avar-a</i>
Fem.	Nil		
Neut.			
	Nom.	<i>adu</i>	
	Dat.	<i>adakke</i>	

Reflexive Pronouns:

B. R.		Singular	Plural
	Nom	<i>tān</i> (15)	<i>tañña</i> (7)
	Dat.		[<i>ta</i>] <i>nkatkkulla</i> (7)
	Gen	<i>tan</i> (4)	
10th			
	Nom	<i>tān</i> (3)	
10th Kan.			
	Nom.	<i>tan</i>	
	Dat.		<i>tamage</i>
	Loc		<i>tammol</i>

Demonstrative Pronoun:

(1) Remote:		Singular	Plural
B. R.	Nom.	<i>avan</i> (2)	<i>avar</i> (hon) (2) <i>avarkaḷ</i> <i>avaraḷ</i> (9)
Masc.	Acc.		<i>avarai</i> (3)
	Instr		<i>avrā</i> (3)
	Dat.	<i>avanku</i> (14)	
	Gen		<i>avarkalutai</i> (13)
Fem.	Nil		
Neut.	Acc.	<i>atu</i> (4)	
	Instr.	<i>atukontu</i> (2)	
	Dat. (or Loc.)		<i>avarrinu</i> (15)
	Abl. (or Gen.)	<i>atiñāl</i> (13)	
10th:			
Masc.	Dat.	<i>avanku</i> (3)	
Neut.	Gen	<i>ātana</i>	<i>avakaḷ</i> (2)
10th (Kan.):			
Masc.	Nom.	<i>ātam</i>	
	Instr.		<i>avarim</i>
	Dat.		<i>avargge</i>
	Gen.		<i>avara</i>

Fem.	Nil		
Neut.	Nom.	<i>adu</i>	
	Dat.	<i>adakke</i>	
(ii) <i>Proximate</i> :			
B. R. :			
Masc.	{ Nom.	<i>ivan</i> (1)	<i>ivarkaḷ</i> (13)
	{ Gen.	<i>ivan</i> (1)	
Fem.	Nil		
Neut.	{ Nom.	<i>itu</i> (6)	
	{ Acc.	<i>itu</i> (12)	<i>ivai</i> (3)
	{ Dat.	<i>itinnu</i> (16)	
10th. :			
Neut.	{ Nom.		<i>iv, ai</i> (3)
	{ Acc.	<i>itaṇai</i>	
10th (Kan.) :			
Neut.	{ Nom.	<i>idu</i>	<i>ivu</i>
	{ Acc.	<i>idam</i>	

PRONOMINAL ADJECTIVES

B. R. : The demonstrative *i* and *a* are used as pronominal adjectives.

E. g. *ippantirukalam* (2) ; *ittanṭam* (2) ; *iccelavu* (3) ; *ippon* (4) ; etc. and *a-vv-āṇṭu* (9).

10th : Demonstrative *i* is used as pronominal adjective.

i (-*c-celavum*) , *i* (-*c-celavinukku amaicca pūmiyum*) (2)

i (-*pparicē taṇṭa -p-paṭuvatu*) (3).

10th (Kan.) : The demonstrative *ī* and *ā* are used as pronominal adjectives. Eg. *ī* (*vasudhātalaḍoḷ*) ; *ā* (*Kāḍiyura*).

Declinable (Relative) Participles used in the place of Relative Pronouns :

The Tamil-Malayāḷam group, as Kannaḍa, has no Relative Pronouns and the Declinable (also called Adjective or Relative participles) are used for the formation of relative sentences.

[For B. R. and 10th cent. examples, see under Adjective Participles].

10th (Kan.) : (i) *idan aḷidom Vārāṇisiya karu Kanran aḷidom*.

(ii) *idam aḷidom Prayageyuvam ... aḷida pātakanu ... akkum*.

NUMERALS

The words for and the treatment of numerals in the inscriptions studied here are much the same as in Kannaḍa and in the other Dravidian languages; and the numeral system seems to have been decimal even in the proto-Dravidian stage.

The numerals are declined like neuter nouns. They are used as adjectives by placing them before the nouns, when they sometimes undergo phonetic changes: e. g. *nūrru nāli*, etc.

The word for thousand is *āyiraṁ* and it appears to be related to the Kannaḍa *sāyira*. It has been suggested that *sāyira* is derived from Sk. *sahasra* through the corrupt form *sāsira* (See, BDCRI, VI, P. 62; also the Tamil Lexicon). But we are inclined to take the view that *sāyira* or *sāsira* may be only a false Sanskritisation of *āyira*.

Compound numbers are formed by multiplication and addition.

A list of the numerals found in the inscriptions studied is given below:

Cardinals:

B. R.:

arai, *mukkāl* (fractions) (3), *onru* (5), *oru* (9), *iraṇṭu* (11), *mūnru* (5), *nāl(u)* (16), *aṅcu* (2), *āru* (16), *ēlu* (13), *onpatu* (13), *pattu* (8), *pantiru*, *paṇṇiru* (2), *paṇṇa(ṇcu?)* (5), *irupattunālu* (2), *irupatta(ṇcu)* (2), *irupattoṇpatu* (4), *muppatu* (10), *nārppatu*, *nālppat(u)* (7), *arupat(u)* (4), *eḷupattiraṇṭu* (1), *eṇapat(u)* (6), *nū(ru?)* (11), *āyira(m)* (9), *āyirattēṭṭu* (9), *nūrāyira(m)* (1), *nālāyirattēṇṇūru* (15).

10th:

iraṇṭu (2), *nā(lu?)* (2), *onpat(u)*, (2), *irupatta (ṇcu?)* (3), *aimpatu* (2), *aimpattiraṇṭu* (2), *nūru(?)* (2), *nūrrunārpattonpatu* (3), *irunūru* (3), *nālāyirattampattoṇru* (1), *nālāyirattampattiraṇṭu* (2).

10th (Kan.):

ondu, *eraḍu*, *mūru*, *nālku*, *aydu*, *āru*, *emṭu*, *pattu*, *mūvattu*, *ayvattu*, *eḷpattara* (of 70), *munmūru*, *aynūru*, *emṭunūru*, *erad-aru-nūru* (two six hundred 1200), *sāsira* (1000), *sāyirada-nūru* (1100), *sasirad-iḷnūru* (1200), *enchāsiraṁ* (8000), *pannirchāsiraṁ* (12000), *tombhattarūsāsiraṁ* (96,000), *el-koti* (70,000,000).

*Compound Numbers:**Multiplication:*

B. R.:

<i>irupatu</i> (2 × 10)	= 20
<i>muppatu</i> (3 × 10)	= 30

<i>nār</i> (l) <i>ppatu</i> (4×10)	= 40
<i>aimpatu</i> (5×10)	= 50
<i>arupatu</i> (6×10)	= 60
<i>eḷupatu</i> (7×10)	= 70
<i>eṇpatu</i> (8×10)	= 80
<i>nānūru</i> (4×100)	= 400
<i>nālāyiram</i> (4×1000)	= 4000
<i>nūrāyiram</i> (100×1000)	= 100,000.

B. R. :

<i>aimpatu</i> (5×10)	= 50
<i>arupatu</i> (6×10)	= 60
<i>eḷupatu</i> (7×10)	= 70
<i>eṇpatu</i> (8×10)	= 80
<i>nālāyiram</i> (4×1000)	= 4000
<i>nūrāyiram</i> (100×1000)	= 100,000.

10th :

<i>irupat(u)</i> (2×10)	= 20
<i>aimpat(u)</i> (5×10)	= 50
<i>irunūru</i> (2×100)	= 200
<i>nālāyira(m)</i> (4×1000)	= 4000

10th (Kan.) :

<i>mūvattu</i> (3×10)	= 30
<i>ayvattu</i> (5×10)	= 50
<i>eḷpattara</i> ($7 \times 10?$)	= 70
<i>munnūru</i> (3×100)	= 300
<i>aynūru</i> (5×100)	= 500
<i>eṁtu nūru</i> (8×100)	= 800
<i>eraḍ-arū-nūr</i> ($2 \times 6 \times 100$)	= 1200

(ii) Addition :

<p>pantiru (panniru)</p>	<p>} (10 + 2) = 12</p>
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$$\text{patinañcu } (10 + 5) = 15$$

$$\text{irupattunālu } (20 + 4) = 24$$

$$\text{irupattañcu } (20 + 5) = 25$$

$$\text{irapattonpatu } (20 + 9) = 29.$$

$$\text{nālpattettu } (40 + 8) = 48$$

$$\text{aimpattettu } (50 + 8) = 58$$

$$\text{eḷupattirantu } (70 + 2) = 72$$

$$\text{nūrrirupatu } (100 + 20) = 120$$

$$\text{āyirattettu } (1000 + 8) = 1008$$

$$\text{nālāyirattennūru } (4000 + 800) = 4800.$$

B. R. :

10th.	{	<i>irupattaim(kalaiñcu)</i> (20 + 5) = 25	}	= 149
		<i>aimpattiru(kalaiñcu)</i> (50 + 2) = 52		
		<i>nūrru nārpattōṇpat(u)</i>		
		(<i>āmāṇṭu</i>)		
		<i>nalayirattampatto(nru)</i>		
10th (Kan.):	{	(<i>rāmāṇṭa</i>)	}	= 4051
		<i>nalayirattampattir(aṇṭu)</i>		
		(<i>āmāṇṭu</i>)		
		<i>panneraḍu</i> (10 + 2) = 12		
		<i>irpatta-nālku</i> (20 + 4) = 24		
10th (Kan.):	{	<i>irpattaydu</i> (20 + 5) = 25	}	= 4052
		<i>mūvatteraḍu</i> (30 + 2) = 32		
		<i>ayvatt-aydu</i> (50 + 5) = 55		
		<i>nūr-ayvattu</i> (100 + 50) = 150		
		<i>mūnūr ayvattu</i> (300 + 50) = 350		
10th (Kan.):	{	<i>eḷnūr-ayvattu</i> (700 + 50) = 750.	}	

Numeral as Adjective :

B. R.:

1. The numerals are placed before the nouns without any change for forming the numeral adjectives: e. g. *oru* (*cuvāmiyōṭu*) (9).
2. The numerals are shortened in combination: *irupattain-* (*kalañcu*) (3).
3. The numerals take an augment at the end: e. g. *arupatin* (*kalañcu cempon*) (4).
4. The *r* of *nūru* is doubled in combinations: e. g. *nūrru* (*nālī*) (8).
5. The numeral follows the noun it qualifies: (*aṇṭu*) *nālppattettum* (*ceṇṇa*) (15).

10th :

1. Normally the numeral is placed before the noun it qualifies without any change to form the numeral adjective: e. g. *iraṇṭu* (*nantāvilakkum*) (2).
2. In combinations the numerals undergo shortening and other phonetic modifications; e. g. *iru* (*nālī*) (1).
3. The numeral sometimes takes an augment at the end: e. g. *aṇpatin* (*kalam*) (2).
4. The *r* of *nūru* is doubled in compound numbers and sometimes even when the numeral stands alone: e. g. *nūrru* (*nārppattoṇpatāmāṇṭu*) (3); *irunūrru* (*kkalañcu pon*) (3).

10th (Kan.):

- (a) *ondu paṇam* ; *eraḍu dēgulakke* ; *tonḍavondu*.
 (b) *or urvvi* ; *pannor mattar* ; *pannir mattar*.

“ In forms like *ondu paṇam*, *eraḍu dēgulakke*, the numerals *ondu*, *eraḍu* etc. are used as numeral adjectives by simply placing them before the nouns they qualify, but in *tonḍavondu* (one garden) the numeral *ondu* follows the noun *tonḍa*. In forms like *pannir mattar* the shortened form of the numerals *pannereḍu* etc. become the adjectives. The shortened forms are found in the compound-numerals also. According to Caldwell they represent the Kannaḍa numerals in their simplest, purest and most ancient shape ” (GAI, BDCRI, VI, p. 63).

Appellative Nouns of Number :

B. R. :

panṭiruvār ‘ twelve persons ’ (5) ; *immūvaru* ‘ these three persons ’ (5) ; *nālvarkkum* ‘ to the four persons ’ (7) ; *aññūrruvār* ‘ members of the assembly of five hundred ’ (9) ; *aiyayirattavar* ‘ members of the five thousand ’ (9) ; *munṇūrruvār* ‘ members of the three hundred ’ (14).

10th :

nālōṇru ‘ one fourth ’ ; *iruvār* ‘ two persons ’ ; *ā marrōṇru* ‘ another one ’ ; *piṇōṇru* ‘ different thing ’ (3).

In the form for the numeral twelve, the first word of the compound viz., *pattu* becomes, as in Kannaḍa, *pan* ; cf.

B. R. : *panṭiruvār*, 10th (Kan.) *panṇirbbār*.

Ordinal Numeral Adjectives : -am is added to form ordinals.

B. R. : *iraṇṭāmāṇṭaikkētir* (1) ; *nālāmāṇṭu* (7) ; *ārāmāṇṭaikkētir* *ēlāmāṇṭu* (3) ; *panṭirāmāṇṭu* (2) ; *irupattunālāmāṇṭu* (14) ; *irupattoṇapatāmāṇṭu* (4) ; *muppattōrāmāṇṭu* (5) ; *muppattārāmāṇṭu* (10) ; *nālppattēṇṇāmāṇṭaikkētirāmāṇṭu* (11) ; *nālppattārāmāṇṭu* (9) ; *aimpattēṭṭāmāṇṭu* (12).

10th :

nālāyirattampattōrāmāṇṭu (1) ; *nālāyirattampattirāmāṇṭu* (2) ; *nūrrunārppattoṇpatāmāṇṭu* (3).

10th (Kan.) : -*ane* or -*aneyā* is added to form ordinals in Kannaḍa *ereḍaneyā*, *mūṛaneyā*, etc.

VERBS

The verbs found in the inscriptions studied here can be classified as transitive, intransitive and causative. There are three tenses: past, present and future; two numbers: singular and plural; and four moods: indicative, imperative (consisting of the obligative and prohibitive types of verbs), conditional and infinitive.

Gender differentiation exists in the third person for all the three genders, viz., masculine, feminine and neuter. The dropping of personal terminations for verbs, however, seems to have come into general vogue in the colloquial speech, and at times, used even in writing, probably due to the carelessness or ignorance of the scribe. There is one instance in the B. R. inscriptions of masculine plural without termination and one instance of the same with neuter termination. If it may not be straining a slender evidence with too hazardous a conjecture, it may be suggested that the neuter termination *-itu* began to be used in the past tense as an expletive in the place of the masculine and feminine terminations, which was then reduced to the present type of verb without termination, and that this practice was subsequently extended to the other tenses also. (cf. EMM, p. 59).

We must, however, state clearly our point of view that the suggestion (CALDWELL, *Comparative Grammar*, p. 377) that proto-Dravidian did not possess personal endings and that Malayālam has inherited this characteristic of the parent speech is quite untenable; we are in perfect agreement with the arguments put forward by Prof. L. V. Ramaswamy AIYAR against this postulate. (See EMM, pp. 60-61.)

PARTICIPLES

Participles are formed by adding tense-suffixes to the root. Adverbial and Adjectival (also called Declinable or Relative) participles are found in the inscriptions under study.

The adverbial participles can be divided into the following types:

(a) Modifying a finite verb—a 'full' adverbial participle; e. g., *ceytu* (*koṭuttōm*) (1), *eḷuti* (*arivēn*) (5), *aṭṭi* (*-k-koṭuttōm*) (9), etc.

(b) Modifying another verbal participle: e. g. *ārāñṇu* (*arīñṇu celutticcu kollakkaṭavar*). In this type the two members—the modifier and the modified may become so united as to form a compound which comes to be regarded as a root by itself e. g., *koṇṭuvannu* (*kuṭukka-k-kaṭavar*). This type of verbal composi-

tion abounds in Dravidian, especially in the Tamil-Malayālam group, and they are found in all degrees of unification, so that it is difficult to say in many cases as to whether they are to be regarded as new roots or as separate units having the force of verbal participles only. *ārāññu arīññu* is an instance in point. Compare also *aṭṭi-k-koṭuttōm* (9) where the whole may be taken as a compound and *aṭṭina* (*nānurrū-k-kalam nilamum*) (15) where *aṭṭu* exists as a separate entity.

(c) Modifying an adjective participle; e. g. *aḷannukoṭukka kaṭavan*. Here also various degrees of intimacy are found between the two participles and in many cases, as in the above example, they have to be regarded as a compound root. The (b) and (c) types are classed here as adverbial participles only with a view to bring out this point of composition clearly, and point out, incidentally, the need for a careful investigation of the problem of verbal composition.

(d) Verbal participles used absolutely; e. g., *•itu koṭuttu marreppērppaṭṭatum koṭukk kaṭamaiyillai*.

-i is used to form adverbial participles:

-i is suffixed to roots of one or more syllables which end in -u:

B. R.:

(*Tiruvōkkirattiṇu virōtam*) *paṇṇi* (*muṭṭikkumiṭayitan*) (2); *kūṭi* (-c-ceytu) (3); *teki* (-y-aṭṭakkatavar); *eḷuti* (*arivēn*) (5); (*Pirāmanarai*) *ūṭṭi* [absolute] (8); (*Pūtapaliyum*) *tūki* [absolute] (8); *aṭṭi* (-k-koṭuttān) (9); *kūṭi* (-y-aṭṭikkoṭuttār) (9):

10th: (*Kaliyukam*) *tuṭaṅki* [absolute] (1); (*Kaviyūr ūrār avirōtattāl*) *kūṭi* (*koyilu muḷḷirukka*) (2); *kūṭṭam-kūṭi* (*iruntarūḷiyeṭattu*) (3); *niroṭṭi* (-k-koṭuttān) (3); (*avirōttāl*) *kūṭiyum* (2) [verbal participle with the particle -um for expressing concession of fact].

10th (Kan.):

Āgi; *Otti*; *Ondi*; *Oppi*; *Kaṭṭi*; *Kalci*; *Kadi*; *turugi*; *tūnti*; *maḍi*.

-i affixed to causative roots: *arccisi*; *arggisi*; *māḍisi*; *sadhisi*.

-tu, -t-tu is suffixed to roots without any change:—

B. R.: *ceytu* (*koṭuttōm*) (1); (*aṭṭi*) *koṭuttu* (2); (*itu*) *koṭuttu* (*marreppērppaṭṭatum*) [absolute]; *paṇimāṇiṭattin̄ku paṇṭu koṭukum ariyum koṭuttu* (8); (*ari-y-*) *koṭuttu* (*irappi-k-kaṭavar*) (9).

10th:

rakṣiccu koṭuttu (*rakṣāpōkam kollā-k-kaṭaviyar*) (3).

10th (Kan.):

-du, -tu added without any change: *kādu*, *ari-du*; *es-edu*; *endu*, *olḍu*; *iḷdu*.

-~~ntu~~, -~~nnu~~, -~~nñu~~, suffixed to roots ending in vowels (both long and short) and consonants:

(*Kōvarttana Mārttāṇṭanai amaiccu Nanrulai-nātu*) *vālnnu* [absolute] (2); *alannu* (*koṭukka-k-kaṭavan*) (4); *kūti-yiruntu* (*inney vānnitu*) (5); (*mun-n-*) *iruntu* (*eḷuti arivēn*) (5); *vannirunnu* (*kallinnēl kāṭṭi*) (6); *koṭuvannu* (*koṭukka-k-kaṭavar*) (7); *koṭuvantu* (*koṭātolikil*) (7); (*mutukūru-vāḷumavar*) *vannu* (*tiruvati toḷutāl*) (9); *arānñu* *arāññ:* (*celutticcu kolla-k-kaṭavar*) (11); (*Cērikkālil*) *ceṇru* (*oru aṇṇāyam paṇṇa ...*) (11); *koṭuvantu* (*palakattalai alaṅka-k-kaṭavar*) (13); (*aḷattu paṇṇirāṭiyin mun*) *vannu* (*tiruvamirtu ceyviccu*) (16).

10th: Nil.

10th (Kan.):

This type of participial formation is rare in Kannaḍa. Only one example (?) is found in 10th cent. inscriptions: *mindu* from *mī* "to bathe."

-*ccu*, -*iccu* added to roots with or without change:—

B. R.:

Pirasādicc (u) aruḷiya (1); (*Kōvarttana Mārttāṇṭanai*) *amaiccu* (*Nanrulai-nātu vālnnu*) (2); *amaiccu* [absolute] (2); (*pattu kūttum*) *āticcu* [absolute] (8); *Parriccu* [absolute] (10); *kaṅkaṇiccu* (*celutta-k-kaṭavar*) (12); *ceyviccu* [absolute] (16).

10th.: (*irunnaruḷiyeṭattu*) *vaiccu* (.....*koṭuttān*) [conjunctive past participle] (3).

10th. (Kan.):

This type of participles is absent in Kannaḍa.

Participles formed by doubling the last consonant:

B. R.:

pukku (*vilakkavum*) (3); (*niyatikkum*) *iṭṭu* (8) [absolute.]

10th.:

pukku (*vilakkavum* *perār*) (3).

10th (Kar.):

mikku (?) [According to Kannaḍa traditional grammars the final soft sonants become hard before the suffix -*du* in words like *pogu*. But primitive Kannaḍa root **puk* with the suffix -*ntu* might have become *pukku*. Ordinarily *puk-tu* > *puttu* but it is *pukka* (*pukku*) because *k* is fully exploded and *t* is assimilated to *k* [GOKI, p. 201.]

ADVERBIAL PRESENT PARTICIPLE

ivarkalarāṇa *ṭuriccu* *vaiccarivēn* (13).

FUTURE ADVERBIAL PARTICIPLES

B. R.:

(*panaiyam*) *kollā* (-*k-kaṭamai-y-illai*) (3); *koṭuppān amai-ññān* (5); *koṭuppān (amaiññār)* (6); *celutticcu koḷvān (amaiññār)* (12); [causative].

CONJUNCTIVE PAST PARTICIPLES

B. R.:

(*Tirunelli mukkālvaṭṭattu*) *ninru* (..... *aṭṭikkoṭuttār*) (9); (*mukkālvaṭṭattu*) *ninru* (*āvirōtattāl paṇṇina kaccamāvatu*) (11).

10th: (... *irunnaruḷiyeṭattu*) *vāiccu (koṭuttān)* (3).

ADJECTIVAL (Relative or Declinable) PARTICIPLES

There are three kinds of adjectival participles in the inscriptions studied; the past, the present and the future. What is called the future in the classification may in several cases have the force of present time also; e. g. *cānticeyyumavaralāi* 'those who (will) perform the pūja'; but they have been put under the future category because they are true for the future also. On the other hand, *avarā kaṭava -p-pon* 'the gold due from them', has a 'present' from and more a 'future' sense.) We should point out here that the classification of verbs and participles according to time cannot be done in a rigid and clear-cut fashion because the boundary line distinguishing the past, the present and the future are in many instances necessarily fluctuating (as JESPERSEN points out in his *Philosophy of Grammar*); and we can make such classification only in a relative sense.

The adjective participles function as relative participles or pronouns.

There are a number of instances where infinitives are used in an adjectival sense in these inscriptions. They have an indefinite sense and therefore they may rightly be called indefinite participles, following LAZARUS (*Tamil Grammar*, p. 134, quoted by ARDEN).

PAST ADJECTIVAL PARTICIPLES

-*nra*:

B. R.: *Itapattul Viyālanninra* (*Tulāñāyirru*) (3); *ninra* (*pātiyum*) (3); *cenra* (*celaviñōṭu*) (3); (*Viriccika ñāyiru irupatu*) *cenra* (*nāl*) (5); (*nālppattettum*) *cenra* (*Tulāttil*) (15).

10th:

Tulāttul Viyālanninra Viriccikañāyirru (3).

10th (Kan.): Nil

-iya, -īna, ulla, a :

pirasāticcaruḷiya (*pirasātam*) (1); *iruntaruḷiya* (*nāl*) (1) [*aruḷiya* in the second example is a mere expletive whereas in the first it has an independent verbal force]; *miliya* (?) (*paḷamvilāṅkāṭum*) (7); (*Caṇṇaran Kōṭavarmman*) *āyiṇa* (*atikal*) (9) [*āyiṇa* is a past relative participle used to denote apposition]; *ippaṇṇiṇa caṅkētam* (9); (*avirōtattāl*) *paṇṇiṇa* (*kaccamāvatu*) (11); *koṭuttaruḷinā* (*cērikkālāvatu*) (11); *attiṇa* (*nānūrru-k-kalam nilamum*) (15); (*peṇmakkaḷai*) *koṇṭa* (*marumakkalkkum*) (1); *ceyta* (*karuṇamāvatu*) (3); *pūmiyōṭamaiñña celavittiliyum* (3); *amaicca* (*nantāvilakku*) (4); *koṭuttaruḷina cērikkāl* (11); (*kēraḷan Pōḷan*) *koṇṭa* (*kārāṇmai*) (12); *kārāḷanāya Iravi Kōvinṇan* (12) [apposition].

PRESENT ADJECTIVAL PARTICIPLES

-inra, -a :

B. R. :

(*kilppataināyakam*) *ceyyinra* (*Mūrkaṇ Cāttan*) (1); *ālāninra yāṇṭu* (1); *cellāninra yāṇṭu* (2); *paṇiceykinra* (*Neṭumpurattu Kuṇraṇ Kōvintan*) (4); *avarā-k-kaṭava* (-p-pon) (3); *amaiñña celavu* (3); (*tiruvamirtinuntiruvakkhiraṭtinum*) *olla* (*pūmiyuḷumar*) (3); *amaicull(a)* (*uruti*) (6); *ippaṇṇiṇa* (*caṅkētam*) (9).

10th: *Vēnattinṅku atikārañceykinra Punalūr Iravi Parantavan* (3); *avakaliṭai-k-koṇṭa* (*aṁpatin kalamum*) (2); *Paṭṭarakarkkolla* (*pūmiyum*) (3).

10th (Kan.): Nil

-um :

B. R. :

ariyuñ (*cātukkal*) (4); *tiruvārāṇanai ūttuñ* (*cāntikalāvōr*) (4); *Tirunelli-k-kollum* (*uṭaṇpāṭu*) (9); *cellum* (*celavu*) (12); (*avarriṇu*) *paṭum* (.....) (16); *itinnu vēṇṭum* (.....) (16).

10th :

ariyuñ (*cātukkal*) (3).

FUTURE ADJECTIVAL PARTICIPLES

B. R. :

-a, -ān suffixed to roots to form future (or better to be designated 'indefinite adjectival') participles expressing the idea of obligation:

*Koṭukka** (*kaṭaviyar*) (2); *taṇṭampata* (-k-kaṭaviyar) (2); *atti* (-k-kaṭaviyar) (3); *celutta* (-k-kaṭaviyar); *paṇaiyam kolla* (-k-kaṭa-mai-y-illai); *viṭa* (-k-kaṭaviyar) *iṭa* (-k-kaṭaviyar) (4); *celutta*

(-k-kaṭavan) (5); cērapanna (kaṭavan) (5); celuttikkolla (*kaṭavan) (9); aḷakka (kaṭaviyan) (13).

-um is suffixed to roots to indicate the idea of simple futurity :

muṭṭikkum(-itaiyiṭan) (2); ceyyum(-avaralāi) (3); paṇṇum (avaraiyum) (3); paṇṇuvitum paraivitum ceytu muṭṭikkum(-avar) (3); koṭukku(m) (-n-neyi) (5); (patinaiṅkalannel) porum(pūmi) (7); tēvakāriyam koṭukkum ūrāl(in) (9); vilakkum (ūrāḷan) (14).

10th :

-a :

celutticukkulla(-k-kaṭaviyar) (1) [causative]; celutta(-k-kaṭaviyar) (2); koṭuppkka(-k-kaṭavar) (2) [causative]; rokṣāpōkamkolla(-k-kaṭaviyar) (3); taṇṭappaṭa(-k-kaṭaviyar).

-um :

vilakkum(ūrāḷar) (2).

10th (Kan.):

The suffixes for the declinable present-future participles are -ppa-, -pa, or -va. Roots ending in -i, -u and -e take the suffix -va, while those ending in consonants take -ppa or -pa.

Exs. ese_{vā} 'shining', oḍu_{vā} 'reading', ir -ppa < ir 'to be', tōrppa < tōr 'to appear', [Gai. BDCRI, VI, p. 63; see also GOKI, p. 205].

CONJUGATION

The personal terminations are :—

First person :

	Singular	Plural
B. R.:	-ēn (arivēn) (1)	-ōm (honorific) (koṭuttōm) (1)

10th.: -an (arivan) (3)

10th Kan.: -en -e

Second person :

B. R.: Nil

10th: Nil

10th (Kan.): Root itself

Third person :

B. R.:

Masc. -ān (koṇṭān) (4) -ār (arivār) (4)

10th:

Masc. -ān (amaiccān) (1) -ār (amaiccār)

Fem. -āl (koṭuttāl) (3)

Neut. -itu (?) (celvitu) (?) (1)

10th (Kan.):

Masc. -an, -am, -om, -a -ar

Fem. Nil

Neut. -adu

As in Kannaḍa, these personal terminations remain the same for all kinds of verbs and tenses and the conjugated forms of the verb are obtained when the personal terminations are suffixed to the participial forms. We can therefore say that there is only one system of conjugation in Malayālam also.

Verbal forms conjugated without personal terminations :—

B. R. (Third, Masc., Pl.) · (*kallinmēl*) *Kāṭṭi* (—*c-Cēraveḷḷūr*
Īraṇ Kaṇṇiyun Kūḷamaināḷattu Śrī Kumāra Narāyaṇaṇum)
(6); (*uvāccakaḷ*) *eḷutitu* (14).

THE INDICATIVE MOOD

Past Tense: Personal terminations, when used, are suffixed to the verbal participles as in Kannaḍa.

<i>First Person.</i>		<i>Sing.</i>	<i>Plural.</i>
B. R. :		<i>amaiccēn</i> (13)	<i>koṭuttōm</i> (hon.) (1) <i>viṭṭōm</i> („) (1)
10th :		Nil	
10th (Kan.) :		Nil	
<i>Second Person</i>		Nil	
<i>Third Person :</i>			
B.R. :	{	Trans. <i>koṇṭān</i> (4)	<i>amaiccaruḷinār</i> (hon.) (2)
		<i>aṭṭi-k-koṭuttān</i>	<i>koṭuttār</i> („) (9)
		(9)	<i>aṭṭikkōṭuttār</i> (9)
	{	intr. <i>amaiññān</i> (5)	<i>amaiññār</i>
		without Trans. <i>amaccu</i> (10)	
		termination Intr.	<i>kāṭṭi</i> (6)
	{ with neuter Trans. termination.		<i>uvāccakaḷ eḷutitu</i> (14)
10th. :	{	Masc. { Trans. { <i>amaccān</i> , <i>amaiccān</i> (1)	<i>amaiccār</i> (2)
		<i>koṭuttān</i> (2)	
	Fem. { Trans. { <i>koṭuttāl</i> (3)		
10th (Kan.) :	{	Trans. { <i>keydān</i> , <i>koṭṭān</i>	<i>aṛidār</i> , <i>āḷdar</i>
		<i>iridon</i> , <i>eydidōm</i>	
		intrins. { <i>puṭṭidan</i> , <i>sattan</i> , <i>irddar</i> , <i>ādar</i>	
	{	case { <i>ādon</i>	
		<i>agaḷisidam</i> <i>enisidam</i> .	
	Fem. {		Nil
	Neut. { intrins. {	<i>āydu</i> , <i>koṭṭudu</i>	

PRESENT FUTURE TENSE

		Singular	Plural
	First person	{ trans. } <i>aṛiven</i> (1)	
	Second person	no examples	
B.R. : { Masc.	Third person		<i>aṛivar</i> (4) .
	Without personal termination		
	First person	trans. <i>ariyum</i> (5)	<i>pōm</i> (9)
10th. :	First person	{ trans. } <i>aṛivan</i> (3)	
	Second person	Nil	
	Third person	{ Masc.	(<i>Mūlīkkaḷattu</i>
		{ Neut	<i>kaccam</i>)
	Without personal termination.	<i>okkum</i> (1)	<i>pīlaccārāvatu</i> (2)

First and Second Persons—no Examples

10th (Kan.):	{ Masc.	{	Third person :			
			trans.		<i>kāpāḍuvar</i>	
		{	{	intrans.	<i>appam</i>	<i>koḷvaru</i>
				caus.		<i>ārppar, irppar</i>
		{	{			<i>ābhya[sisuva]r,</i>
						<i>pratipālīppar</i>
	{ Neut.	{	intrans		<i>irppudu,</i>	
			caus.		<i>tōruvudu</i>	
					<i>pratipālisuvudu</i>	
		With <i>-kum</i>				
	suffix :		<i>akkum, enmikkum, esegum, oppogum, etc.</i>			

IMPERATIVE MOOD

(a) Obligative :

B. R. : *-um* suffixed to the root :(ūrūḷaṇum paraṭaiyārum iccelavu) *celuttavum* (3).*-itu* suffixed to roots :

(amaiñña celavu celuttavē) *kaṭavitu* (3); (urēpāṭaṇum perumutiyāṇum kūtiyiruntu inney) *vāññitu* (5); (ivariyāl pāti tiruvamirtu) *cēvitu* (13); (kuṭutū) *koḷvitu* (13); (iccelavu mutṭukiliratti) *celuttuvitu* (13); (taṇṭā-p-) *paṭuvitu* (14); (atuvilakkumavaralūm ittaṇṭamē) *paṭuvitu* (14); (paṇimāñṇittai pullikīlāmaiñña vaṇṇamē kaṇattāruñ cānti ceyyumavaralūn) *kaṇṭu-koḷvitu* (16).

10th: -*atu* or -*itu* suffixed to roots :

(*vilakkumūrālar*) *taṇṭappatuṇṭu*; (2); (*avanku pātutān-kumavanum ipparicē*) *taṇṭappatuṇṭu* (3).

10th (Kan.) No examples.

PROHIBITIVE

The root *peru* (?) with personal terminations is suffixed to the infinitive to express the idea of prohibition. [It is important to note that the -*r*- of this root is not doubled before adding personal terminations.] In a form like '*perān*' the formation is probably *peru* + *a* + *an*, the *a* signifying negation and the whole meaning literally "to obtain not he"; and meaning in its auxiliary function merely "he should not". [The solitary form *perin* probably means "if he should", but the context is not clear.]

B. R.:

vilakkavum poruḷ kavavavum muttikkavum perār (3); *pāṭṭa-mālavum cāntikku mūpāratattinu kaikkūli kolla-p-perār* (3); *mūvāntil mika vaikka-p-perār* (3); *kolla-p-perār* (7); *orrikollavum ulavu ulavum perār* (14).

10th :

iccelavum iccelavinukku amaicca pūmiyum vilakka-p-perār (2); *ipparicu ceyta kiḷittil ūrālarāka itaiyiṭarāka pukku vilakkavum poruḷ kavavavum perār* (3).

Causative: *ūrāravirōtattāl-k-kūṭiyum iccelavu maruṇṇinukku celuttikka-p-perār* (2).

CONDITIONALS

B. R.: -*āl* :

tolutāl (9)

-*il*, -*ākil* :

muttikkil (3); *koṇṭuvarukil* (4); *koḷvōnākil* (4); *muttukil* (5); *ceyil* (9); *vilarkil* (9).

NEGATIVE CONDITIONAL :

irāmaiyum 'even without giving?' (1); *koṇṭu vantu koṭāta-ḷikil* (7).

10th :

-*āl* :

iccelavellā-m-oṭṭitteyakālattu celuttākkāl (2)

THE INFINITIVE MOOD

The suffix *-a* is used to form the infinitive for all kinds of verbs and they do not change for gender or number, as in Kannaḍa. The infinitive is used in the inscriptions studied in combinations which express the ideas of obligation and prohibition; in the former it is followed by a noun and functions as an adjective participle (see under Adjective Participles), and in the latter it is followed by an auxiliary which expresses the idea of prohibition (see under Prohibitives). It is also used absolutely to express contemporaneous actions as in Kannaḍa, when it corresponds to the Latin ablative absolute.

EXAMPLES OF VERBAL PARTICIPLES USED ABSOLUTELY

B. R. :

Iṭapattil Viyālan nirka 'when Jupiter was in Rṣabha' (7); *Kōvart-taṇa Mārttāṇṭan Nanrūla nāṭu vāla* 'when *Kōvarttaṇa Mārttāṇṭan* was ruling *Nanrūla nāṭu*' (14).

10th :

Kaviyūr ūrar avirōtattāl mukkālvattattu kūṭi koyilumullirukka 'when the people of *Kaviyūr* unanimously assembled in the temple' (2); *Sri Vallabhankotaṭaiyūṭan irukka* 'while sitting with *Sri Vallabhankōtai*' (3).

10th (Kan.) : The suffix *e* or *-al* is used to form the infinitive :
eliye, āge, āle, enal, eseyal, oppal.

Negation is expressed in the inscriptions studied by using the following forms :

illai : *neykku paṇaiyam kolḷa-k-kaṭamai illai* 'there is no need to take security for the ghee' (3)

itu koṭuttu marrepp-rppattatum koṭukka kaṭamai illai 'having given this, nothing else need be given' (6)

alla : *neyyallātatu kolvōṇākil* 'if that which is not ghee is taken' (4).

anri : *neyyanri* 'except ghee' (3).

oli : *ōr ōttarai oli* 'without a priest' (9).

It should be noted that some verbs are used in a different sense from which they are used today : e. g. (*Pattanāpanum...Kēyavan Tēvanum*) *arivar* (will investigate [and take necessary action?]); (*tiruvārāṭanai*) *ūṭṭuñ* (*cāntikaḷāvōr*) (The priests who conduct the *tiruvārāṭanai*) etc.

SUBSTANTIVES DERIVED FROM VERBAL ROOTS

The substantives derived from verbal roots can be classified as Verbal Nouns and Participial Nouns. They are called verbal nouns when they denote the action of the verb and participial nouns when they refer to something which does the action of the verb. (cf. Arden, *Grammar of Colloquial Tamil*, p. 227.) They are declined like the other substantives; e. g. *paṭṭatinukku*, *cānticeyyumavarai* etc. Participial nouns do the duty of relative pronouns also.

B. R. :

I. Verbal Nouns :

By doubling the last consonant of the base :

eḷuttu, 'writing' (< *eḷutu* 'to write') (1); *pokku* 'waste' (< *pōku* ? 'to go to waste') (7).

By adding the suffix -mai or -ai :

iṇmai 'the state of being without' (< *il* 'no') (1); *vāḷkkai* 'ruling' (< *vāḷ*) (2).

II. Participial Nouns :

(1) From Past Relative Participles :

koṇṭān, 'he who has acquired' (1); *paṭṭatinukku*, 'to that which is included' (3); *ceyyiccōn* 'he who caused it to be done' (9); *vāticcōrkku*, 'to them who argued' (14), etc.

(2) From Present Relative Participles :

ullatu, 'that which is' (3); *neyyallātatu*, 'that which is not ghee' (4); *koṭāttavakaḷ* 'those who do not give' (9); *kāppavaralṭai*, 'of those who guard' (15); etc.

(3) From Present-Future Participles :

iṟukkumatu, 'that which is (will be) given'; *perumatu*, 'that which is (will be) obtained' (1); *nāṭuvāḷumavarkku*, 'to him who will govern (= governs) the district' (2); *pāṭutāṇṇumavan*, 'he who will abet' (2); *pūmiyuḷumavar*, 'those who will cultivate the land' (3); *mutṭikkumavar*, 'those who will obstruct' (3); *mutukūru vāḷumavar*, 'he who will rule (rules) in the old branch' (9); *vilakkumavakaḷ*, 'those who will prevent or obstruct' (9); *orrikoḷḷumavan*, 'he who will take on mortgage' (14); etc.

10th :

Verbal Noun :

eḷuttu (3).

*Participial Nouns :**From Past Relative Participles :*

mūttavan, 'he who has attained the position of seniority' (2);
koṇṭatu, 'that which has been obtained' (3).

From Present-Future Relative Participles :

vilakkumavakalkkanupantam paraiyumavan, 'he who supports the person who obstructs' (2); *pinonru ceyyumavan*, 'he who makes a change'; *pāṭutāṅkumavan*, 'he who abets' (3).

10th (Kan.): *ēlge* 'growth' 'prosperity' from *ēl* 'to rise, grow'; *negarte* 'fame' from *negal* 'to shine'; *pogarte* 'praise' from *pogal* 'to praise'; *aḷavu* 'measure' from *aḷ* 'to measure' *arita* 'knowledge' from *ari* 'to know'.

ADVERBS

Adverbs of Time, Place and Manner are found in the inscriptions under study. They generally precede the verbs to which they refer and are placed as near to them as possible.

Examples :—Adverbs of Time :

B. R. : (*Tiruvōnattin*) *munṇēy* 'before *Tiruvōṇam*' (3) '*(Viḷu)itikai* 'before *Viṣu*' (3); *cantirāticcaval* 'so long as the sun and the moon last' (5); *āṭṭum(koṇṭuvannu koṭātoḷikil)* 'if not given yearly' (7); *niyati* 'daily' (8); (*Ōṇa-tt-*) *aḷvaum* 'uptil *Ōṇam* (16); *akattu paṇṭirāṭiyin*(*mun(vannu)* 'having come before the midday worship' (16); etc.

Adverbs of Place :

mun(-n-iruntu) 'sitting in front'; (*Tirunelli mukkālvaṭṭattu*) *ninru(aṭṭi-k-koṭuttōm)* 'gave it away while being at the *Tirunelli* temple' (9). (Here the past participle of *niḷ* along with the preceding substantive is used with an adverbial force. Cf. modern *aviṭe veccu eḷuti*. Such forms are usually classed as conjunctive participles, but we suggest that they may better be termed adverbial particles.)

Adverbs of Manner :

marrum 'moreover' (1); *mikkum (eḷupattiraṇṭu)* 'besides, the seventy-two' (1); *kūṭa(-k-koṭuttōm)* 'gave together with' (1); *avirōtattāl (kūṭi)* 'unanimously assembled' (3); *mika*

(*muttukil*) 'if delayed much' (3); *paṇṭu* (*koṭukkum*) 'what is usually given' (8); *avirōtattāl*(*paṇṇina*) 'done unanimously' (11); *murrār̥ra*(-*k-kūti*) 'unanimously assembled' (9); etc.

10th :

Adverbs of Time :

āṇṭuvarai(-*k-koṭuppitāka*) 'stipulating that it should be given annually' (3).

Adverbs of Place :

mer(*collappaṭṭa*) 'above said' (3).

Adverbs of Manner :

avirōtattāl (*mukkālvattattu kūti*) 'unanimously assembled in the temple' (2); *vevvērruvakai*(-*c-Cirrūr nātaittaṇṭam taṇṭa-ppaṭa-k-kaṭaviyan*) 'separately he is bound to suffer the punishment imposed by the *Cirrūr̥nātai*' (3).

Adverbs formed from nouns by the addition of a particle :

Examples :

B. R. : *āṭṭaikkōlāka* (*koṭuppāṇamaĩṇṇār amaiccolluruti*) bound themselves to make annual payments as stipulated (6).

10th : *kiliṭāy* (...*koṭuttāl*)

'she gave it as a subordinate possession' (3).

10th (Kan.) :

Adverbs of Time :

andu (then), *baḷikke* (after), *modal* (first), *munnam* (before), *āvagam* (always), *santatam* (always).

Adverbs of Place :

alli (there), *keḷagoṇa* (before), *poragu* (outside), *pora* (out), *idir* (in front), *munde* (in front), *mēre* (direction), *oḷage* (inside), *baḷi* (near), *kaḍe* (towards), *ettalum* (everywhere), *elliyum* (anywhere).

Adverbs of Manner :

antu (in that manner), *ante* (like), *intu* (in this manner), *entu* (how), *vol* (like), *nere* (perfectly).

Adverbs of Place preceded by :

(i) Uninflected stem :

B. R. : (*immūvaru*) *muṇ* (-*n-iruntu*)

(ii) Inflected stem :

B. R. : (loc) *Tirunelli mukkālvaṭṭattu ninru* (...atti-k-koṭuttān)
 10th (Kan.) : (gen) *kereya eraḍu kaḍe, muvattara oḷagaṇa*, etc.

CONJUNCTIONS

The conjunctive suffixes are :

B. R. : -um, -u (?) (=and).

10th : -um, -u (?) (=and) : *āka-āka* (neither...nor).

10th (Kan.) : -um

Examples :

B. R. :

I. (i) Substantives with -um added to every one :

e. g. *Añcuvaṇṇamum peṭiyālum vāyaṇattālum*, etc. (1)

(ii) -um added only to the last substantive :

e. g. *Tirukkālkkarai tēvanulpāṭan perumutiyān potuvālum* (12).

(iii) -um joins clause : e. g. *marrum nakarattil kuṭikal kōyilkku irukkumatu ivan irāmaiyum perumatu peravum āka ceppetṭōṭum ceytu koṭutiōm* 'Even without paying what other citizens are paying to the king, we have allowed him to enjoy the privileges which others enjoy' (1).

(iv) Participial nouns with -um :

e. g. *atu vilakkumavaralum, cānticeyyumavaralum*, etc.

(v) -um suffixed to genitive between stem and termination :

e. g. *Ulpāṭanum Perumutiyānumuṭaiya* (13).

II. Substantives with -u as conjunctive suffix ?

tiruvamirtu nantāvilakkun tiruvakkiramum pūmiyōṭamañña cilavittiliyum (3); *cānti ceyyumavaraiyu atināl kilōḷḷa*, etc. (3); etc.

10th : I. (i) -um added to every one of the substantives :

e. g. *tiruvilakkun-tiruvamirutun tiruvakkiramum-tiruccannaṇa mun-tiruppukaiyumamaccān* (1).

(ii) -um added to personal pronouns :

e. g. *nānumarivan* 'I also know' (3).

(iii) -um joins clauses :

pukku vilakkavum poruḷ kavavaravum perār (3).

'should not obstruct or steal the provisions.'

- (iv) *-um* added to participial nouns :
vilakkumavakaḷḷk-aṇupantam paraiyumavakaḷum (3) ;
 those who support the obstructers'.
- (v) *-um* with numerals :
nālonṛum (2).
- (vi) *-um* coming after accusative sign :
Paṭṭāarakaraiyum Paṭṭāarakarkolla pūmiyum (3).
- II. *-u* as conjunctive suffix ?
ūrāḷa Cēnnankari tiruvakkirattinṇu kuṭikūru cantanattinṇu
pūkaikku Cirupunayitalai Cāttankūru amaiccān (2).
- III. *-āka-āka* : *ūrālarāka itaiyiṭarāka pukkuvilakkavum poruḷ*
kavaravum perār 'neither the *ūrāḷars* nor the *itaiyiṭars*
 should obstruct or steal the provisions' (3).
- 10th (Kan.) :
- I. (i) Substantives with *-um* :
 e. g. *balpum kūrppum ārppum*.
- (ii) *-um* suffixed to accusative between the stem and termination :
 e. g. *initumam*.
- (iii) *-um* with numerals ;
nālkum bāḍavumam
- II. *-am* as conjunctive suffix :
kālakkam, mahājanakkam, etc.

CONCLUSIONS

Palaeography shows that the Bhāskara Ravivarman inscriptions are probably later than the tenth century Māmbaḷḷi Plate, as the Vaṭṭeḷuttu script employed in them is more developed than that in the Māmbaḷḷi Plate. The symbol for *k* provides a good example. It is a well-known fact that the angularities of the Vaṭṭeḷuttu script were gradually rounded off and that this rounding and the habit of carelessness it resulted in reached such an extent by the seventeenth century that the script became well-nigh illegible because the same symbol came to be employed for more than one sound. The Vaṭṭeḷuttu script employed in the Bhāskara Ravivarman and tenth century inscriptions represent the script at its best as there is marked distinction maintained between the different symbols. The script of the Bhāskara Ravivarman inscriptions, however, shows on the whole more rounding than that of the tenth century inscriptions, but not so much as in the twelfth century Vaṭṭeḷuttu inscriptions, which fact lends support to the view that the Bhāskara Ravivarman inscriptions belong to the tenth-eleventh century of the Christian era.

The linguistic study leads to the following conclusions :

(1) The medial *ai* is reduced to *a* in some instances in both the B. R. and 10th century inscriptions, which fact shows that they both belong practically to the same transition period. The B. R. inscriptions, however, show a greater frequency of occurrence of this phenomenon, which may indicate that they are slightly later.

(2) Although the phenomenon of nasal assimilation seems to have become a normal feature of the colloquials of the West Coast by the tenth century, as is evidenced by the tenth century inscriptions studied here, the tendency is seen in a more pronounced manner in the B. R. inscriptions. But since the forms without nasal assimilation occur side by side and in good proportion as in the tenth century inscriptions, the B. R. inscriptions could not have been far removed from the former.

(3) The verbal form *arivan* in the tenth century for the corresponding *arivēn* in the B. R. inscriptions may perhaps be an earlier form.

(4) The two instances in the B. R. inscriptions of verbal finites without personal endings show that these inscriptions belong to a period when the West Coast speech was just developing this characteristic. This tendency becomes fairly pronounced by the twelfth century, as is evidenced by the twelfth century *Rāmacaritam* and the numerous citations contained in the Commentary of the fourteenth century *Līlātilakam* which grammar points out the absence in Malayālam of personal terminations in the third person 'neuter' past tense forms. The B. R. inscriptions which contain only two instances of this phenomenon are therefore to be ascribed to a period earlier than the twelfth century.

(5) There is close similarity between the B. R. and 10th century Malayālam inscriptions in the matter of vocabulary which shows that they belong practically to the same period.

The study that has been presented in this paper is a first attempt at the morphology of the Middle Dravidian. Being such it is bound to be not exhaustive, especially as we have not been able to give a fuller treatment to the entire subject by taking into account the earliest Kannaḍa inscriptions as well as the Tamil and Telugu inscriptions with all the literary data presented by these languages. But the facts presented in this paper will speak for themselves showing the reader the state of the Middle Dravidian at a time when Tamil and Malayālam formed such a close group whence one could not easily be distinguished from the other.

APPENDIX

TEXTS OF INSCRIPTIONS WITH INTRODUCTIONS

The introductions are only adaptations of those found with the published texts; and we have given them here with a view to make this publication as much self-contained and useful as possible. In printing the texts we have given them just as they are found in the published texts; but wherever plates have been published we have verified the readings and noted the variations and emendations we could suggest at the end of the inscriptions concerned.

In regard to the trasliteration of the Malayālam and other forms in the introductions we have retained the method of the editors of the inscriptions.

1. *Cochin Plates of Bhāskara Ravivarman* (EI, III, pp. 66, ff.)

Place: The original of the inscription is in the possession of the Jews at Kocci (Cochin). It is engraved on two copper plates; the second side of the second plate is blank. The grant was made at *Muyirikkōḍu* (which is identified in the Hebrew translation of the document in the possession of the Cochin Jews with *Koḍuṇṇallūr* or Cranganore) where the Jewish colonists resided, until the bad treatment which they received there at the hands of the Portuguese induced them to settle near Cochin.

Date: 36th year opposite to the 2nd year of the reign of *Bhāskara Ravivarman*. HULTZSCH thinks that the meaning of this mysterious phrase is probably the thirty-sixth year of the king's coronation, which took place after the second year of the king's *yuvārājya*.

Characters: The character which is chiefly used is the Chera-Pandya (*Vaṭṭeḷuttu*) alphabet. Grantha letters are used in a number of Sanskrit words. In the foreign word *Issuppu*, the syllable *ssu* is expressed by a Grantha group. The inscription ends with a symbol which may be taken either for an ornamental mark of punctuation, or for an archaic Nāgari *śa*, which might be taken for *sri*.

Purpose: The inscription records a grant which the king made to *Issuppu Irappān* i. e. *Joseph Rabban*. The object of the grant was *Añjuvaṇṇam*. The word means 'five castes' and may have been the designation of that quarter of Cranganore in which the five classes of artisans,—*Ain Kammālar* as they are called in the smaller *Kōṭṭayam* grant,—resided.

Historical Interest: The grant of certain privileges made by the Hindu sovereign to the Jewish colonists in his kingdom is extremely interesting as it bears testimony both to the benevolent nature of the ruling power and to the influential position of the Jews who were perhaps traders. *Muyirikkōḍu*, where the grant was made, appears to have been the old name of Cranganore.

"The last plate contains the names of a number of witnesses of the transaction. Five of these were the chiefs of five districts (*nāḍu*) which must have been included in the dominions of *Bhās-kara Ravivarman*. These were *Vēṇāḍu*, *Vēṇāpalināḍu*, *Ērālanāḍu*, *Valluvanāḍu*, and *Neḍumpuraiyūrnāḍu*. *Vēṇāḍu* is the Tamil name of the Travancore country. *Vēṇāpali* is identified by ELLIS with "Verapoli". *Ērālanāḍu* or, as it is called in the smaller Kottayam grant, *Ēranāḍu*, is the territory of the *Tāmūdiri* (*Zamorin*) of *Kallikkōṭṭai* (Calicut). *Valluvanāḍu* is still the name of a taluka of the Malabar district. *Neḍumpuraiyūrnāḍu* is the district of *Pālakkāḍu* (Palghat), and is probably identical with *Puraigilanāḍu* in the *Tirunelli* grant. The last two names on the plate are those of the "sub-commander of the forces", and of the under-secretary who drafted the document."

NO. 1

FIRST PLATE ; FIRST SIDE

Svasti śrī [||*] *Kōkōnmai-kōṇṭān kō śrī Pārkarāṇ Iravivanmar*
tiruvaṭi pala nūrāyirattāntum cenkōl naṭattiyālāniṇra yāntu
iraṇṭāmāntaikketir muppattārāmāntu Muyirikkōṭṭu irun-
taruḷiya nāl pirasāticcaruḷiyā pirasātam āvatu [||*] *Īssuppu*
Irappānukku Añcuvaṇṇamum peṭiyālum vāyaṇattālum
pākuṭamum Añcuvaṇṇappērūm pakalvīlakkum pāvāṭaiyum
antōḷakamum kuṭaiyum

FIRST PLATE ; SECOND SIDE

Vaṭukapparaiyumakākālamum iṭu paṭiyum tōraṇamum tōraṇa
vitāṇamum caravum mikkum eḷupattiraṇṭu viṭupērūm kūṭa-
k-koṭuttōm [||*] *ulakuntulākkūliyum viṭṭōm* [||*] *marrum*
nakarattil kuṭikal kōyilkku irukkumatu ivan irāmaiym
perumatu peravum āka-c-ceppēṭṭōṭum ceytu koṭuttōm [||*]
Añcuvaṇṇam uṭaiyu Īssuppu Irappānukkum ivan santati
āṇmakkalkkum peṇmakkalkkum ivan marumakkalkkum peṇm-
akkalai koṇṭa marumakkalkkum santatippirakiriti ulakum
cantiraṇṭum ullālavum Añcuvaṇṇam

SECOND PLATE

Santatippirakiriti [I*]·Śrī [II*] *Ippari arivēn Vēnāṭuṭaiya Kōvart-taṇa-Māttāntan* [I*] *ippari arivēn Vēn[ā]palināṭuṭaiya Kōtai Cirikaṇtan* [I*] *ippari arivēn Ērālanāṭuṭaiya Mānavēpala-Mānaviyan* [I*] *ippari arivēn Valluvanāṭuṭaiya Irāyarañcāttan* [I*] *ippari arivēn Netumpuraiyūrṇāṭuṭaiya Kōtaiy-Iṇavi* [I*] *ippari arivēn kilppataināyakam ceyyinra Mīrkkāñ-Cāttan* [I*] *Vanraḷaicēri-k-Kaṇtan Kunrappōl-anāya kilvāykkēlppān eluttu* [II]

2. *Tirukkāḍittānam* Inscription No. 1 of the reign of Bhāskara Ravivarman (TAS, V, p. 176 ff.)

Place: "Engraved on the west and south bases of the central shrine of the Viṣṇu temple at *Tirukkāḍittānam*, a village 2 miles east of *Changanāṣeri*, the headquarters of the taluka of the same name in the *Kōṭṭayam* Division of the Travancore State. *Tirukkāḍittānam* is one of the thirteen *divyadēśams* or *pāḍalperra Vaiṣṇava-kṣētrās* in the *Malaināḍu*; the praises of the temple at *Tirukkāḍittānam* have been sung by *Nammāḷvar* who lived according to the astronomical calculations of L. D. Swamikkannu Pillai, in A. D. 798. Consequently the temple existed from at least the 8th century of the Christian era. The temple has several inscriptions on its walls, a large number of which belong to the reign of *Bhāskara Ravivarman*". (TAS, II, p. 33).

Date: 2+12 (=992 A. C., according to the TAS editor.)

Character s: *Vatṭeluttu*.

Purpose: "It registers that the *kōyiladhikāri* made a gift of the revenue in kind derivable from the village of *Tirukkāḍittānam* for feeding 24 Brahmanas in the temple, after deducting 12 *kalams* which was set apart according to an earlier agreement for the payment of the impost to the ruler of the district. It is also stated that *Gōvardhana Mārttāṇḍavarman*, who was the governor of *Vēnāḍu* was given administrative control over *Nanrūḷainadu* also. (TAS, V, p. 176.)

Historical Interest: "As *Tirukkāḍittānam*, *Peruneyil*, and *Tiruvāṇvāṇḍūr* are all mentioned to have been within the jurisdiction of the chief of that division, this district should have comprised the country lying between and possibly extending somewhat beyond these villages. *Gōvardhana* also figures in the Cochin Plate of *Bhāskara Ravivarman*, 2nd+36th year (EI, III, 68)."

Palaeographic peculiarities: The writing is in a running and somewhat careless hand. Some letters are disproportionately bigger than the normal and vice versa. The *u* sign is represented by a wavy line beneath the right hand side of the letter :

The *Śrī* at the end of the document is very much like the modern Malayālam *Śrī*, the *i* mark being exactly the modern sign.

NO. 2

1. *Svasti Śrī* [||*] *Ko-p-Pākkaraniravivarmar tiruvaṭṭaiyā c-cellāniṇṇa yāṇṭiraṇṭāmāṇṭaikkētir-pantirāmāṇṭu Venāṭuṭaiya Kovartt-anam Mārttāṇṭa* [nai] *amaiccu Nanrūlainātu vāḷṇnu Tirukkatittānattāl nāṭṭinukku Āttunkollum uṭampāṭṭāl vāḷḷkai āka* [pāṭṭa] *ṭitaṇḱaiyāl pantiru kalannel āṭṭaikkolāka am* [ai] *ccu mikkatu āṭṭikoṭuttu atu*
2. *koṇṭu irupattunālu kalam akkira mamaccaruḷiṇṇār kovilatikārikal* [||*] *ippantirukalamum nāṭuvāḷumavarkku ūrum potuvāḷuṇ-kūṭi-k-koṭukka kaṭaviyar* [||*] *Tiruvakkirattinū virotam paṇṇi muṭṭikkumuṭaiyiṭaṇ koyilatikārikalḷkku irupattai* [m] *ṇḱalaṇṇu poṇṇu nāṭu vāḷumavarkku pantirukaḷaṇṇe aṇcu kāṇamu vāḷḷkai vāḷumavarkku aruka-*
3. *laṇṇe iraṇṭaraikkāṇamum āṭṭaikkol* [vā] *rkkum poṇṇuṇkūṭa-t-taṇṭam.*
4. *paṭakkaṭaviyaṇ* [||*] *pāṭutāṇṇumavanumittāṇṭam paṭakkaṭaviyaṇ* *Śrī* [||*].

Emendations.

Line in plate	Text	Emendation or Variation we suggest
1 b	<i>etir</i>	<i>eti</i> (no final <i>r</i>)
1 b	<i>Vēṇāṭuṭaiya</i>	<i>Vaṇāṭuṭaiya</i>
1 e	<i>am(ai)ccu</i>	<i>amaccu</i>
1 c	<i>Tirukkatittānattāl</i>	<i>Tirukkatittānattal</i>

3. *Tirukkaḍittāṇam* Inscription No. 2 of *Bhāskara Ravivarman* (TAS, II, pp. 34 ff.).

Place: Engraved upon the north and west walls of the central shrine at *Tirukkaḍittāṇam*,

Date : 7th year opposite the 6th year. " It belongs, according to the reading of the inscription, to the thirteenth year of the reign of *Bhāskara Ravivarman*. A point worthy of note in the inscriptions of this king is that all of them are dated in some years *opposite the second*. The second year has been obviously omitted here through inadvertence; for, on working up the astronomical details they are found to agree actually only with the thirteenth year. Regarding the date Swamikannu PILLAI writes thus : No. 89 of 1086 (of the Travancore collection) 13th year : Jupiter in *Rishabha*, *Tulā* month. Of the years 990, 991 and 992 which correspond to the 13th, 14th and 15th regnal years in this series, only A.D. 992, *Tulā* month answers this description, 'Jupiter in *Rishabha*'. I suspect that '*iraṇṭāmāṇṭaikkettir*' which is present in all the other *Bhāskara Ravivarman* dates has been left out in this case and that the regnal year is really the 15th." ¹

Purpose : It records certain arrangements regarding the temple affairs.

Characters : *Vaṭṭeḷuttu*.

Historical Interest : Temple affairs were managed by a democratic body consisting of the chief townsmen (*ūrāḷar*) and the *paruḍaiyār* (members of the council, *sabha* or *pariṣad*) and the *poduvāls*. They met in the temple and held discussions and recorded their resolutions on stone (and copper). This may indicate the fact that all matters of public importance were decided by such meetings of the representatives of the people concerned, which may mean that the authority of the king was severely limited and the ruler was a constitutional monarch of the modern type. But since we have no such records (at least pertaining to so early a period) we cannot be quite certain about this conclusion. Provision was made for the reading of *Mahābhārata* in the temple in accordance with the injunction of the *Āgamās*. The priests of the temple were appointed only for a short term, three years in the present instance, at the end of which new incumbants took up their posts. This is the practice in most important temples in Malabar even today. *Brāhmaṇas* were fed in the temples, just as they are even now.

1 We cannot however subscribe to this view because the wording is '*ārāmāṇṭaikkettir ēḷāmāṇṭu*', and this does not naturally allow of another '*ettir*' second.

NO. 3

1. Svasti śrī [||*] Kō-p-Pakkaraniravivarmmar tiruvaṭṭikku-c-cellāninra āramāṇṭaikkētirēlāmāṇṭu Iṭapattul Viyālanninra Tulāṇāyirru Tirukkaṭittānattu mukkalvattattavirōtattāl ūrum parūṭaiyārum potuvāluṅkūṭi-c-ceyta karumamāvatu[|*]. paṭṭārakaruṭaiya tiruvamirtu nantāvilā-
2. kkuntiruvakkiramu māpāratamu pūmiyōtamaiṇṇa celvattiluyum (?) pukku vilakkavum poruḷkavaravu muttikkavum perār [|*] ūrālarum parāṭaiyāru[m] iccelavu celuttavum pāttamālavuṇ cāntikku māpāritattinuṇ kaik[kūli] kollapperār [|*] cānti ceyyumavaralāi mūvāṇṭil mika vaikkapperār [|*] ūrālarum parāṭaiyārun tirivamir-
3. tinun tiruvakkirattinummolla pūmiyulūmavar tiruvami[r̥ti]nū vittumakkirattinū uṇakkiyuripōki nelli Iṭapaṇāyirru Tiruvōnattinmunnēy mukkalvattattu alavu koṭukka kaṭaviyar [|*] nantāvilakku celuttumavar Cittiraiviḷaviṇu pāṭiyattakkaṭaviyar [|*] ninra pāṭiyu-m-Appiyaiviluvitikai-y-aṭ-
4. ṭa-k-kaṭaviyar [||*] Mūnrunāl muttikiḷ muttiraṭṭi celutta-k-kaṭaviyar [|*] mika muttikiḷ cenra celaviṇōṭu pāttam viṭa-kkaṭaviyar [||*] Tiruviḷakkuntiruvamirtu akkirattinū māpāritattinūmivai iṭṭilumullatu marronriṇu kollavuṇ koṭukkavum perār [|*] Amaṇṇa celavu celut-
5. tavē kaṭavitu [||*] Cānticeyyumavaraiyu aṭiṇāl kiḷolla[ṭay?]ṇṇa viruttipa[n?]nū[mava]raiṇu tānamum parāṭaiyūṇ kollapperār [||*] Parāṭai pāttamāḷapperār [||*] Parāṭaiyūṭaiyavarē pāṭṭaṇ koṭukkapperāravarākkaṭavapon purattēlkkapperār [||*] Ikkaccattil paṭṭatinukku virōṭa[m*] pannuvitum paraivituṇ ceytu mu-
6. ṭikkumavar pannirukaḷaiṇṇē aṇcu kāṇam ponraṇṭappaṭa-k-kaṭaviyar paṭṭāraḷaraku [||*] Anrāṭu kōyilkkum pannirukaḷaiṇṇē aṇcu kāṇam ponraṇṭappaṭa-k-kaṭaviyar [||*] Pāṭuāṇṇimavaraiyumavarumitaṇṭamē paṭa-k-kaṭaviyar [||*] Pūmiyōtamaiṇṇa viricikaviḷakku celuttumavar caṅkirānti nālē ney-.
7. tekiyaṭṭa-k-kaṭaviyar [||*] Neykku paṇaiyaṇkolla-k-kaṭam-aiyillai [||*] Viricikaviḷakku muttīmavar anrāṭu kōyilkkum pattukāṇam ponraṇṭam paṭakkaṭaviyar [||*] Sri.

After a careful study of the published plates, we suggest the following emendations to the reading given above :

Line in plate	Text	Variation
1	<i>paruṭai</i>	<i>paraṭai</i>
2	<i>celavittiluyum</i>	<i>celavittiraiyum</i>
2	<i>kolla-p-perār</i>	<i>kola-p-perār</i>
3 d.	<i>Tiruvōnattin</i>	<i>Tiruvōnattinu</i>
3 e.	<i>nantā</i>	<i>nantatā</i>
3 g.	<i>Appiyai</i>	<i>Ayappiyai</i>
4 d.	<i>ittilumullatu</i>	<i>ittiraiikkumullatu</i>
7 e.	<i>mutṭimavar</i>	<i>mutṭikkumavar.</i>

4. Tirukkākkarai Inscription No II, of *Bhāskara Ravivarman*.
(TAS, III, p. 182 ff.)

Place : “ *Tirukkākkarai* is a village in the *Ālaṅgād* Taluk of the *Kōṭṭayam* Division in North Travancore. It is about two miles from the *Eḍappallī* railway station of the Cochin State Railway and is famous for its *Viṣṇu* temple, celebrated in the hymns of the *Nammāḷvar*. The god there is now called *Appan* and the goddess *Periṇjelva Nāyaki*. While the village is termed *Tirukkāṭṭkarai* in the *Nālāyiraprabandham*, it is spelt *Tirukkāḷkkarai* or *Tirukkākkarai* in inscriptions “ (TAS, III, p. 161.) ” *Tirukkākkarai* is one of the thirteen *divyadēśams* of the *Malaināḍu*. Till quite recently the superstructure of the temple was ruined and lost, the image in the central shrine broken into three pieces and a semblance of *pūja* maintained in it. The temple is not only sacred to the *Srivaishnavās* but also to all the Malayāḷis from the Cape Comorin to *Gōkarnam*, the reputed boundaries of *Kēraḷa* : it is the deity of the temple of *Tirukkākkarai* that is invoked by the latter on their rational festival, the *Ōṇam*, and every house, however poor or rich it might be, offers *pūja* to Him on that day.” (TAS, II, p. 38.)

Date : Dated in the 29th year opposite the 2nd year of the reign of *Bhāskara Ravivarman*. “ Regarding the date of the inscription Swamikkannu PILLAI notes that it is equal to A. D. 992, October, when Jupiter’s mean longitude was 44.55. The first regnal year according to this inscription falls in A. D. 982, January 7th.” (TAS, III, p. 182.)

Characters : “ The (*Vaṭṭeluttu*) characters in which the inscription is engraved appear to be much later than the time of *Bhāskara Ravivarman*. Perhaps it is due to the indifference of the scribe or that the record itself is a copy, though it is not so specifically

stated. The large number of spelling mistakes found in it also points to the same end."

Purpose: "The object of the inscription is to register a gift of sixty *kaḷañjus* of gold by *Kōdai Nārāyaṇan* of *Serumarrappulāi*, to the temple of *Tirukkākkarai Bhaṭṭarar*, for lamps. The gift amount was invested with *Kaṇḍan Nārāyaṇan* of *Mākkannappallī*, who was required to supply, by way of interest, to the *Ulppāḍan* and the *Perumutiyan* the ghee necessary for burning the lamp. It is stated that nothing but ghee should be accepted, and that one who acted contrary to this order should be punished by the assembly at *Mūlīkkalām*. In case the capital was returned, it had to be invested on land."

Historical Interest: '*Mūlīkkalā-k-kaccam*' (also called *Mūlīkkalattoḷukkam*) is quoted as punishment for those who accept anything but ghee. (Compare also the expression '*Cirūrṇaṭai-t-taṇṭam*' in the *Māmballī* Plate of *Śrī Vallabhan Kōtai*.) Commenting on the *Kaviyur* Inscription of the 4051st year of the Kali Era, Gopinatha RAO writes (TAS, I, p. 289): "This, as also a large number of the inscriptions on the West Coast, mention the arrangement or decision made at *Mūlīkkalām*. He that breaks the objects of any endowment is deemed to have sinned against this decision. It is unfortunate that we cannot know what this decision of *Mūlīkkalām* (*Mūlīkkalākkaccam*) is: for the temple of *Mūlīkkalām* is one of the thousands of temples that fell a prey to the vandalistic tendency of Tippu Sultan. The Temple was burnt by him and all stone records were lost. Quite recently, the temple has been repaired in an uncouth manner and the *pūjās* are being conducted in an indifferent style. It is one of the thirteen *Pāḍalperra Sthalaṅgaḷ* of the *Malaināḍu*."

NO. 4

1. *Savasti Śrī* [||*] *Ko-c-ciri Pākkaraniravivaṇmar tiruvaṭikku-c-cellānirayāṇṭu irāṇṭā[mā]*
2. *ṇṭaiḱketir irupattoṇpatāmāṇṭu Kumpattul Viyāḷanninra Makara ṇāyirru Cīrumarrappulāi*
3. *Kotai Nāraṇan kaiyyāl arupaṭiṅkaḷaiṇcu cempon koṇṭān Mākkannappallī Kaṇṭa Nārāya[ṇan]* [||*]
4. *Ippon arupaṭiṅ kaḷaiṇ[ṇunnu mattakkaṭaṇ korriyarar keḷaṅku]*
5.*Mākkanna pallinnālu paṇai*[||*].....

6. *kaḷaiññinu Tirukkārkarai-p-paṭārarkku Kotai-Nāraṇaṇam-
aicca nantāvilak.....*
7. *vāru ney koṇṭuvannu alannu koṭukka kaṭavan Kaṇṭa-
Nārāyaṇa[||*]nUlpāṭaṇum perumutiyaṇun[kaiyila]*
8. *ḷannu koṭu[k*]ka kaṭavan[||*] ney[ya*]anri koḷvor Mūḷikka-
lakkaḷa-k-kaccam[||*] Ippariyariyuñcātu-*
9. *kkaḷ neyyallātatu koḷvoṇākil[taṇ] pōkattoḷḷa tiruvārāṭinaiyū-
tṭiñcāntikaḷā-*
10. *vor Mākkannappallu Tupparam-Pattaṇāpanu[m*] Neytalma-
ññalattu Keyavam-Tevaṇu-*
11. *maṇivar[||*] Perumutiyaṇ-Kotai Kaṇṇaneluttu[||*] Kaṇṭa-
Nārāyaṇaṇ pon koṇṭuvarukil*
12. *tila paḷāramāññitamun Kaṇṭa-Nārā[yaṇa]nun Kotai-Nāraṇa-
num kūṭi pūmimelittaḷkaṭavar[||*].*

Line in plate	Text	Variation
1	yāṇṭu	māṇṭu
3	kaḷaincu	kaḷaiññu.

NO. 5. *Tirukkākkarai* Inscription No. 3 of *Bhāskara Ravivarman* (TAS, Vol. II, pp. 42-43.).

Place: Engraved on the base of the front maṇḍapa of the Viṣṇu temple at *Tirukkākkarai*.

Date: 29th year opposite the 2nd year of the reign of King *Bhāskara Ravivarman*.

Characters: *Vaṭṭeḷuttu*.

Purpose: Records certain arrangements which were made regarding the collection of rents in kind due on the temple lands which were leased out to a number of private persons.

Historical Interest: *Pōḷaṇkumaran* of *Panṟitturutti* is mentioned as governing *Neṭumpurāiyūrnāḍu* and the *Kāḷkkaraināḍu*. This may mean that the government of the land was carried on by dividing it into several districts with a governor for each. *Iravi Kumaran* of *Vēṇāḍu* is stated to have written the document. *Vēṇāḍu* then seems to have been one of the districts of the realm.

NO. 5

1. Svasti Śri [||*] Kō-c-ciri Pārkkaran Iravivanmar tiruvaṭikku-c-cellāninra-yāntu iranṭāmaṇṭaikketi irupattoṇpatāmāntu Tanuvil Viyālanninra Viriccikaṇāyiru irupatu cenra nāl ceyta karu-
2. ma-m-āvatu [||*] Cerumarrappulai-k-Kaṇṇamaññalattinmēl Nakkaniraviyum Āticaniraviyūn kotukkunneyi itankaliyāl patinaññāli neyyum Tirukālkkarai palārarkku Puttil-
3. lattu Nārāyanantēvan kuru kalakanālōnriññēlu tiruvi akkinuney koṭuppanamaññān Nārāyanantēvan [||*] Inney Mitunaṁuñ Karkkaṭakamuñ Cinnamu m*immūnru tinkaluñ celutta-k-kaṭavan [||*] Muṭṭukil muṭṭiratti koṭukka-kaṭavan [||*] Kaṇṇamaññalattinmēl palārarkku ēttuvikkum Nārāyanantēvan tankuru cantirāticca [karu]val-cērapaṇṇa kaṭavan [||*] Panritturutti Pōlañ kumaran Neṭumpraiynāṭuñ Kālkarai nā-
4. tu vānanāl ulpātanum perumutiyaṇuñ kūtiyiruntu inne[y*] vāññitu[||*] Ippariariyūñ cātukkaḷ Manrattu Cuvaran-Tuppanumariyum[||*] Permanaikkōṭṭattu Cañṇaran-Tāmōtiranumariyu Māññāṭtu Nārāyaṇaṇ-kaṇṇaṇumariyum [||*] Nākappalli Puraiyañ-Cēṇṇaṇumariyum [||*] Kulikkālāy Iravi-Kōtaiyum Cerumarrappulai-k-Kōtai-Ayyaṇuñ Kōtai-Nāraṇaṇu [m*] Kōtai-Kēraḷaṇu -y-immūvaru¹ munniruntu ikkarumam [m*] panittavakai-y-eḷuti arivēn Vēñāṭtu Iravi-Kumaranēn [m*]

No. 6. Peruneyil Inscription of Bhāskara Ravivarman

(TAS, II, p. 44).

Place: Engraved on the south base of the central shrine of the temple at Peruneyil, a suburb of Changanacherry.

Date: 31st year opposite the 2nd year of the reign of Bhāskara Ravivarman.

Characters: Vaṭṭeḷuttu.

Purpose: "It is recorded that some arrangements were made when Jupiter stood in the Rishabha Rāśi in the 38th year of the reign of the king, the time corresponds to April-May of the year A. C.

1. In the corrigenda the editor corrects *munṇiruntu* as *mulliruntu*, but we have retained *munṇiruntu* as it makes better sense.

1016. The document was got engraved on stone under the supervision of the King's officers *Iravikanni* of *Śōravellūr* and *Kumāra Nārāyaṇan* of the *Kūlamāṅgalam Illam*. "The immediate purpose for which the order was issued by the king is that the tenants need not pay to the king's officers any other sums of money beyond what is due under their tenancy conditions and this order was passed upon the resolution arrived at the meeting of the townsmen, the *pariḍaiyārs* and the *poduvāls* of the village of *Peruneydal* and communicated to the king for information and necessary action."

Historical interest: Popular assemblies exercised a check on the administration of the realm by the king's officers and beaurocratic corruptions were promptly brought to the notice of the king who took measures to put an end to them.

NO. 6

1. *Svasti śrī* [||*] *Kōṇōyinmaikoṇtān kōcciri Pākkaraṇiravivarma tiruvaṭikku -c-cellāṇinra-y-āṇṭu waṇṭāmāṇṭaikkettir mup-*
2. *pattōrām* [ā*] *ṇṭu Peruneytal ūrum paraṭaiyārum potuvāḷ-uṇkūṭi Itapattil Viyāḷanni[n]rāvāṇṭu itaṅkaḷiyal enpa-*
3. *tin kalannel Nanrūḷai nāṭṭiṇu āṭṭaikkōḷāka koṭuppanāmaiṇṇ [ā]ramaiccuḷlu [ṇ?] ta. r kōyilatikārikalḷku i (?) tu koṭuttu ma [r] reppon¹-*
4. *pattatuṇ koṭukka [kka*]ṭamaiyillai [||*] Itu tirumukaṇkā-ṭṭikkollakkataṭaviya[renru] aruḥceyukaiyāl-k-kōyila*ikārikaḷāy vanniruntu kallin-*
5. *mēl-k-kāṭṭi² -c-Cōravellūr Iravi-Kaṇṇiyuṇ-Kūlamāṇṇalattu śrī Kumāra-Nārāyaṇanum ||-*

Line in plate	Text	Variation
1 c.	yāṇṭu	vāṇṭu
3 b.	amaiṇṇ [ā] ra- maiceuḷlu[ṇ?] ta. r etc. }	amaiṇṇā- ramaiccuḷluruti
4 c.	vanniruntu	vannirunnu

NO. 7. *An Inscription of Bhāskara Ravivarman dated in the 2+4th year of the reign. (T. A. S., III, p. 179 ff.)*

1. The editor suggests the reading: *marreppērpattatu*.
2. *kāṭṭi-c-Cōravellūr* may be read also as *Kāṭṭiccōr Vellūr* as the Editor notes in the corrigenda.

Place: Engraved at the proper right entrance on the outside of the south base of the first *prākāra* of the *Viṣṇu* temple at *Tirukkākkarai*.

Date: "It belongs to the time of the Cēra King *Bhāskara Ravivarman* and is dated in the second opposite to the fourth year (i. e. the 6th) of the reign of the King. In this year it is stated that Jupiter was in *Ṛṣabha rāsi*. In the reign of *Bhāskara Ravivarman* Jupiter was in *Rishabha* in the years 980, 992, 1004, 1016, 1028 and 1040. None of these could be the sixth year of the king's reign. There must, therefore, lie some mistakes either in the citation of the regnal year or in giving the position of Jupiter. If the regnal year had been given correctly and mistake made in assigning the exact position of Jupiter, we would have to correct '*Ṛṣabha*' into '*Kaṇṇi*'; on the other hand if the planet had been correctly located, the regnal year 'second opposite the fourth' would have to be corrected into 'the second opposite the twenty fourth'. In this case the date of the inscription would be A.D. 1004."

Characters: *Vatṭeḷuttu*.

Purpose: "The object of the inscription is to register a gift of money by *Kōdai Kēraḷan* of *Śerumarrappulāi* to the temple of *Tirukkākkarai* for feeding *Brāhmaṇas*. The money was received by the temple officials the *ulpāḍan* and the *perumudiyan*; and apparently entrusted to *Dēvan Nārāyaṇan* and his three brothers on condition that they supplied an interest at 10 (per cent), twelve *kalam* paddy annually. In case of failure to observe the condition, they were obliged to leave to the temple land yielding fifteen *kalam* of paddy. It may also be noted that in order to meet wastage, one *nāḷi* in excess was also stipulated to be paid."

Historical Interest: "The donor of this record *Kōdai Kēraḷan* of *Śerumarrappulāi* figures along with his two brothers *Kōdai Ayyan* and *Kōdai Nāraṇan* in another inscription of the same king found in the same place." (TAS, III, p. 180.)

NO. 7

1. Svasti Śrī [||*] *Ko-p-Pārkaraniravivaṇmarkku-c-cellāninra-y-āntu irantāmāntaikkettir nālāmāntu Itapattil Viyāḷan ni [rkā] -k-Karkatakañāyirru -c-ceyta karumamāvatu [||*] Tirukkākkarai-p-pattāraḱarutaiya ulppātanum perumutiyannuṅ kayyāl-c-Cirumarrappulāi-k-Kotai-Kēraḷan amaiccu akkīra-p-ponnā [r] patu paḷaṅkācinōtukūṭa poṇ nūrrirupa-tiṅkaḷaṅcu poṇ [||*] araiḱkāl*

2. *manai utaiya Teva-Nārāyaṇanun Tevan-Tuppiramaṇi-yaṇun Tevañ-Cuvākaraṇu [n*] Tevañ-Cennaṇu-mippon nūr-rirupatin kaḷaṇcum [pattu] arai poliyāl [ā]ṭṭum pantirukalannel koṇṭu vannu Cirumarrappulaṭ-t-tevaritaṅkaḷiyāl-k-kutukka-kaṭavar [||*] Ipponṇinu paṇaiyam Ilāṅkulattu taṇṇa nālvarkkumulla miḷiya-p-paḷam Viḷāṅkāṭum Utarai-kkuliyum marru¹.*
3. *ikaṭṭkuliḷa miḷi paṇaiyam [||*] Āṭṭāṇṭuñ Cirumarrappulaṅk-kēre Kaṭakaṇāṇāyirru koṇṭuvantu koṭu [to] likil-p-patinaiṅkalannel porum pūmi tevarma[ñi]ṭattinu viṭakkaṭavar Teva-Nārāyaṇanun [m*] Tevan-Tuppiramaṇiyanun Tevañ-Cuvākaraṇun Tevañ-Cennaṇu [||*] -m- ippūmi nel koṭātoḷi [kil] taṭuttu kiṭa ... lḷum muta...mā....*
4. *ḷku [ivayu] kovillai ippūmimel ninru ippon kotukkapperin Teva-Nārāyaṇanum [ta]mpimāru u [l*] ppāṭaṇum perum-tiyaṇu kolla-pperāṇ [||*] Nel nāḷi pokku koṭukka-kaṭavar [||*] Ipparicaṇiyuñ cātukkaḷ Paḷippurattu Taniviyum Menralai Nārāyaṇan-Tuppiramaṇiyanun Korap-*
5. *paraṃpin Caṅkarai-Kaṇṭaṇum Menralai-p-Pāṇṭa Nārāyaṇanum Kulaicekarappattinattu Kumarañ-Cirikaṇṭaṇum Kumarañ-Kuṭṭaṇuñ Perumaṇaikkottattu Kecava [n*]-Caṇṇaraṇuñ Kumaramaṇ²*

line in plate

text

variation

1. 3.

Koṇṭuvantu

Koṇṭuvan nu

NO. 8. Record of Bhaskara Ravivarman: 2-1- year (TAS, V, p. 187 ff).

Place: Engraved on the upper face of the narrow *upāna* (lowermost stone member) of the base of the central shrine of the Adbhutanārāyaṇa temple at Tirukkāḍittāṇam, which contains many other record of the same sovereign. The stones comprising the base-ment having become slightly disturbed on account of age, the top portion of the first line of this epigraph is hidden away by the next superposed thin *champa* stone member supporting the *kumuda* moulding.

1. The two letters at the end may be *m ta*—Ed.

2. The portion left at the end cannot be much. It must have contained the syllables *galam* and the name of the person.—Ed.

Date : This record is dated in the year (here one stone is much defaced) opposite to the 2nd year of the reign of King *Bhāskara Ravivarman*.

Characters : *Vatṭeḷuttu*.

Purpose: *Srīvallabhan Kōṭaivarman*, the ruler of *Veṇādu* (*Veṇāṭu-ṭaiya*) made some provision for the conduct of the *Uttiravilā* festival beginning from the day of *Kārttigai* in the month of *Kumbha*. This record is incomplete.

Historical Interest. "This piece of epigraphical evidence is entitled to much greater consideration than all the other debatable arguments based merely on astronomical, palaeographical and linguistic data, that had hitherto been advanced in attempts at determining this Cera King's date The important synchronism that the record furnishes is that *Veṇāduḍaiya Srīvallabhankotai* was a feudatory of the Cēra King *Bhāskara Ravivarman* along with *Gōvardhana*.

Fortunately for us we know this *Veṇādu* ruler from his *Māmbaḷḷi* copper plate and his two *Tiruvanvaṇḍūr* stone inscriptions. (TAS Vol. IV, pp. 1-11 and TAS Vol. II, pp. 22-25). Of these three the copper-plate is dated in *Kollam* 149 and the other astronomical details give the English equivalent A. C. 973 November 10. As we do not know how long this *Venadu* ruler reigned, and in what part of his reign *Kollam* 149 fell, we can only say that *Bhaskara Ravivarman*, his suzerain of the *Tirukkadittānam* records, should have been reigning in the last quarter of the 10th century A. C. and as Swamikkannu PILLAI has independently arrived at A. C. 978 for the King's accession from calculating the details furnished in the unpublished *Tirunelli* plate this may be accepted as the correct date of this Cera King" (TAS V, p. 188).

NO. 8

Svasti śrī [||*] *Ko-c-ciri Pārkkaraṇiravivarmanmarkku-cellāninra-yāṇṭiraṇṭin*¹ *Mārttāntar Nanruḷanāṭu vāḷa-t- Tirukkaṭṭāṇattu Uttirakaṇattārum niḷalum paṇiyuṇkūṭi Veṇāṭuṭaiya Cīrīvallaṇkōṭaivarmanmar amaicca Uttiravilā āṭṭāṇṭuṇ Kumpaṇayirru Kārttiyai koṭināṭṭi niyati munnāḷi-nāḷiyāl nūrruṇāḷi arikoṇṭu aṭṭi-y-ūnuṇ kariyu-n-neyyu-m-onṭāy-p-Pirūmaṇarai ūṭṭi-p-pattukūttum-āṭiccu paṇimāṇiṭa-*

1 The missing syllables must be *netir* *mantu Kovarttana*—Ed.

*ttin̄ku paṇṭu koṭukkum ariciyum koṭuttu nālāyvaṇṇāḷiyil
verṛlaikonṭu niyatikkumittu pūtapaliyuntūki Uttirattinā.¹*

text
ariciyum

variation
ariyum

NO. 9. *Tirunelli* Copper-plate grant of *Bhāskara Ravivarman*
(*Indian Antiquary*, XX, p. 285 ff.)

Place: The plates belonged originally to the *Tirunelli* temple in the *Vayanādu* (*Wynād*) taluka of the Malabar District. The *Tirunelli* temple, 8 miles north of *Mānantavāḍi* (*Manantoddy*) is dedicated to *Perumāḷ* (*Viṣṇu*). It is placed on a branch of the *Kāvēri* river at the foot of the *Br̥hmagin* plateau *Wynād*; the people of North Malabar used to resort to it for the performance of *Śrāddha* ceremonies, until by the opening of the railway it became easier for them to visit *Pērūr* on the *Nōyel* river in *Coimbatore* for this purpose.

Date: 46th year opposite to the current year of *Bhāskara Ravivarman* (See *Hultzsch's* discussion regarding the date on pp. 288-89 of *IA*, XX.)

Characters: *Vatteluttu*. (See *ibid.* p. 286.)

Purpose: To regulate the income of the *Tirunelli* Temple. An order issued by *Śaṅkaran Kōtavarman* of *Puraikūḷānāḍu*—the division of *Pālakkāṭu* (*Palghat*) who must have been a vassal of the King *Bhāskara Ravivarman* with whose name the document opens.

Historical interest: *Śaṅkaran Kōtavarman* of *Puraikūḷānāḍu* must have been a vassal of *Bhāskara Ravivarman* whose dominions must have extended as far north at least as the *Wynad* taluk.

NO. 9

FIRST PLATE: FIRST SIDE

1. *Svasti śriṣṣKōPākkaran-Iravivarmmar tiruvaṭikkū-c-cellāṇṇa*
2. *yāṇṭaikkettir nālppattārāmāṇṭu a-vv-āṇṭu Cinnattil Viyāḷan m.*

1. The writing stops here and may have been continued on the lower base which is now covered up by the flooring of the *prakāra*.—Ed.

3. *nra makara ñāyirruḷ Tirunellip-Perumālīṭaiya cirikāriyam-
m-āva-*
4. *tu [||*] Tirunelli-k-kollum utaṇpātu Tirunelli-P-perumālḱku a-*
5. *tti-k-koṭuttān Caṇṇaraṇ-Kōtavarmman-āyina aṭikal Puraikilā-*
6. *rum [||*] ṇilalum paṇiyum kūtiy aṭṭikoṭuttār [||*] Puraikilā-*
7. *nātu mutukūru vāḷumavar vānnu tiruvaṭṭiy toḷutāl munnā-*
8. *nāḷiyāl āyira nāḷi-y-ari -y-koṭuttu iraiṇṇiy-k-kāṭa-*
9. *var [||*] Tirunelli-p-Perimālīṭaiya cirikāriyam kuṭa-k-kāṭaviyava-*
10. *kaḷ kūti-y-allātu oruttan ēkkaiyḱam oru cuvāmiyōṭu kūti tē-*

FIRST PLATE: SECOND SIDE

11. *vakāriyam keṭukkum ūrāḷaṇ ullitu utaiyatu*
12. *cuvāmi kolla-k-kāṭavar [||*] Ūrāḷaṇum ōr ōttarai oḷi tēvakāriya-*
13. *mceyil āyirattēṭṭu kāṇam poṇ taṇṭam paṭa-k-kāṭavaṇ [||*] I-*
14. *ttāṇattinṇu tan-ñ-ñātikaḷum yēkikaḷum unṇinṇu-*
15. *celuttikolla-k-kāṭavar [||*] Ipperumālīṭaiya cirikāri-*
16. *y āṛāṇṇu aṛiṇṇu celutticcu kolla-k-kāṭavar [||*] I-*
17. *-vv-ūr akattu ūrāḷar āka kōyil maṇuḷaccērāka cētu-*
18. *m ceyyum vilakkumavakaḷ ūrāḷaṇ vilakkil i-*
19. *rupattu ṇāl-k-kaḷaiṇṇu poṇ taṇṭam paṭakkāṭavar [||*] kōyi-*

SECOND PLATE: FIRST SIDE

20. *l maṇuḷaccēr vilakkil ṇilal-v-vakaiyira kōyil-*
21. *lḱku pōm [||*] Āṭṭaitṭicai koṭāttavakaḷ taṇṭappaṭa-*
22. *-k-kāṭavar [||*] Ippaṇṇina caṇkētam aṭikaḷ Puraiki-*
23. *ḷārum ṇilalum paṇiyum murrārra-k-k-kūti Tirune-*
24. *lli mukḱālvattattu ninṇu tan-ñ-ñātikaḷu[m *] yō-*
25. *kikaḷum ūrāḷar kaṇṇiyilum aṭṭi-k-koṭu-t-*
26. *tār [||*] Puraikilāṇāṭṭu Aṇṇūrruvarkkum Aiyā-*
27. *yiravarkkum kiḷiṭu [||*] Iccaṇkētam aḷiḱku-*

SECOND PLATE: SECOND SIDE

28. *mavakaḷ Mūḷikkalattu-kaccam* [||*] *I cirikāriya-*
 29. *m unṇinru ceyyiccōn Malaiyampallī*
 30. *Āriyaṅkuṭṭan* ||⁹ ||¹⁰ (1)

9-A. A Second Plate of Bhāskara Ravivarman Found
 at Tirunelli. (Epigraphia Indica, XVI, pp. 443-44).

Although this inscription has not been included in our linguistic study, we have considered it necessary to print it here with a view to bring together all the important Bhāskara Ravivarman inscriptions which have been so far published. It is also in the Vaṭṭeḷuttu alphabet and is dated in the forty-third year of the reign of the King. It records certain gifts by Kuṇṇikkuṭṭa-varman, who was governing the Mūtta-kūru of the Kurumburai nādu, to the temple at Tirunelli.

NO. 9-A.

1. *Svasti Śrī[h||*] Kō Śrī Pārkkaraṇ-Iravivarman-tiruvatikku-*
c-cellā (n) ninra irantām-ā[n]-
2. *ṭaikketir mūppatt [aiyā]m-āṇṭaikketir-ārām-āṇṭu Tulāttil-v-*
Viyālānninra Miṇāṇāyiru
3. *eṭṭu cenra Putaṇāṇṭa Uttirattiṇāl Tirunelli mukkālvaṭṭattu*
ninru ceyta kāriyam-āvatu [i] Ti-*
4. *runelli-p-Perumālkku niyatam pantira-[ti*]kku ari munnā-*
nāḷiyāl arunāḷi oru nantā-
5. *[viḷa] [k*]k[u] (ṭā) amaiccān Ki [i*]kkāṭṭiy-p-Pōlaccērikkāl*
aṭṭikkututtān Mūttakūru-vāḷkinra
6. *Kuṇṇikkuṭṭavarman-āyi[na] Aṭikal Vira-k-Kurumpurayār-*
tiruvaṭi aṭṭikkutū-
7. *ttaraḷyār [||*] Mūttakūrriḷ Eḷunūrruvarum paṇiyuṭaiya nāya-*
num ūru[m] ūriṭa-*
8. *vakai Vellālarum Kurumpurayināṭu Mū[ttā]kūrrinukk-amaṇca*
Niḷa[lum]paṇi-

(1) We have not taken into consideration the last portion of the inscription beginning from the middle of line 30 because it is very illegible and also seems to be a later addition as suggested by HULTZSCH.

9. *yun-nāṭum iṭavakaiyu[m*] pirakitiyum uṭan-kūṭininr-avirōtamāy*
Tirunel-
10. *li-p-Perumālkkū niyatam akattu-pantī raṭi-tiruvamirtinukkumi*
oru nantā-
11. *vilakkini- Kilkkāṭṭiya-p-Pōlaccērikkāl-aṭṭikkututtu [||*] Ar*
munṇā-nā-
12. *liyāl-a[rū]nāliyālum pāti Pirāmmaṇar ami[r]ti-ceyvitu [||*]*
pāti-c-cō-
13. *rū-n-nirāṭṭupallikku [pañ]camāsaptan-kōṭṭi uvāccakal kolvitu*
[||] I-c-cep-*
14. *pēṭṭil-p-paṭṭay-ilekaiyiṇāl ērru[k*]koṇṭa puruḷarāvōr Tiru-*
nelli-

SECOND PLATE

15. *pura Nārāyaṇan Vāsutēvan-āyina Nelkkunraṭikaḷum Nella-*
mam Nārāyaṇa-
16. *n Tirunelli-ttālṭvāriyaṇu pirakitiyum Tirunelli mukkālvaṭṭa-*
ttamai-
17. *ñca patipātamūlamāti ivarkaḷ kaiyyil-aṭṭikkututtān Kuñcikuṭṭa-*
var[m]an-āyi-
18. *na Vira-k-kurumpurai kilkkāṭṭiya-p-Pōlaccērikkāl [||*] I-c-*
cērikkāl taṇ-ññātikalḷku
19. *yōkikalḷku Śrīvaiṣṇavarkkuñ-kilṭiṭāka koṭuttitu [||*] I-c-celav-*
nukku iṭaiyūru parai-
20. *ñṇu muttiku[m*]-avan ārarai-k-kāṇa [m*] ponraṇṭam Peru-*
māl paṇṭārat[t]il vaiccu muttiraṭṭi tiruvami-*
21. *rtum nuntāvilakku[m*] vaippiccu mukkālvaṭṭattu cellakkaṭa-*
van [||] Itakkarivu Ārūr-k-Kuññi-*
22. *[Vi*]kkiraman-ākiya atikāraṇum Amaiyamaṇṇalattu Yakkan*
Cāṭṭanākiya paṭai ultuṇum (?) Kiliyā-
23. *[r]ru Pālavalli Ayyaṇu[m*] Kāyumaṇ-Māyinaṇ-Kaṇṭaṇum*
Maṇaiṇāṭṭu Kaṇṭan Kēriḷaṇum Kannaṇūr Irāmaṇ-Ku-
24. *ñṇiyu[m*] arivar [||*] Kuru[m*]purayināṭṭu Maināyan*
Iravi-y-Irāmaṇ ēvalālā[y] kaiyyeluti-y-arivēn Vālice-*
25. *ri-k-Kaṇapati Nīlakaṇṭan-āyina Kurum-purai-p-peruntaṭṭā-*
nelluttu [||] Gō-Prāhmaṇāṇā svastika[m] svasti [||*]*

26. *Tirunelli-p-Perumāḷḷku Kurumpuraiyinaṭu Mūttakūru vāḷ-
kinra Kuṇṇikuṭṭavar-*
27. *mmanāyi[na] Vira-k-Kurumpuraiyār koṭutta vellī-p-pānaiyum
v[e*]lī vāḷu [m*] pa[rā] kaiyum mut-*
28. *tu-tāḷvaṭāmu [m*] ennūrru eḷupattettu muttu niyatam eṭuppiṭu
[||*] cārttuvituñceyvata [||*].*
29. *Pātevatevaiyamātōr:—[Ōm] namō Nārāyaṇāya namaḥ [||*].*

NO. 10 *Tiruvangayur temple-inscription of Bhāskara Ravivarman*
(S 11, VII, p. 75).

Place: On the base of the *balipūṭha* in the *maṇḍapa* in front of the temple at *Tiruvangayur temple* in *Fāryad amsom, Kurumbranad taluk, Malabar District.*

Date: The 35th year of *Bhāskara Ravivarman.*

Purpose: Records private donations to the temple.

Historical Interest: Testifies to the fact that the sovereignty of *Bhāskara Ravivarman* was acknowledged in North Kēraḷa.

NO. 10

1. *Svasti śrī [||*] Ko-p-Pākkara Iravivarman tiruvaṭikku cellāninra
iyāṇṭu muppattai.*
2. ṭu Mā [ka] lūr Karā. n Kecavan palikkal-parriccu nāḷi
ari amaccu [||*]

NO. 11. *Tirumūḷikkalam Inscription of Bhāskara Ravivarman,*
(TAS, II, p. 46)

Place: Base of the front *maṇḍapa* of the *Viṣṇu temple* at *Tirumulikkalam*; *vaṭṭeḷuttu* characters.

Date: Dated in the year opposite to the forty-eighth of the reign of *Bhāskara Ravivarman.*

Purpose. Records the gift of land by the King *Manukulādityan* for the maintenance of an *agṛam* (feeding of Brahmanas).

Historical Interest. "It is curious to note that the inscription K, L and M (See TAS, II,) are dated in quite a different manner from all other inscription of *Bhāskara Ravivarman* (viz. A to J the

two Tirunelli grants, the Cochin-plates etc.) ; that is, the year two which used to be quoted first, to which some other year was usually set opposite, is itself set opposite to some other year in L ; in other words, the order is reversed. In K, the year one is set opposite to the 48th..... On astronomical grounds Swamikkannu PILLAI is inclined to believe that some of the documents should perhaps be attributed to a second Bhaskara Ravivarman."

NO. 11

1. *Svati śrī* [||*] *Kō-Pākkara Iravivarmmar tiruvatikku cellāninra yāntu nālppattennāmāntāikkettirāmāntu Tirumūlikkalattu ūrum potuvālunkūti mukkāl vaṭṭattu irunnu avirōtattāl paṇṇina kacca-māvatu* [||*] *Manukulāticcan tiruvakkirattiṇu koṭuttarūḷina cērikkālāvatu* [||*] ... *yī Pūyattu parāmpu perumparāmpu Kō-*
2. *tāiyūr vāyilkkātu Melāṇṇiṇi-p-Pulai neṭuṇṇan pār (?) Paṇāi-riṇātu ta ... [pu] lāi verupaṭṭi Cellamaṇṇalan tōṭṭi [pū] ... cāi makalil pātiyum [i-] c-cērikkā...ruppu...kārāṇmai...mavaṇum Kō [vinna] ... cce Kōma ... lum ḷi ... ḷa ... kacca.....*
3. *yum vēḷaṇum aku ...ṭeya okkum iraṇṭu kuṭikkamāincitarum Maṇukulāticcan tiruvaktirattiṇulla cērikkālil cenru oru aṇṇ-ṇāyam paṇṇa yār Iruṇṇāti Kaṇṭalum Ayirāṇikkalattum ūravāriyarum. na [po [rṛā taṇ Kōṭāi ... nārāyitaṇunku*

NO. 12. *Tirukkākkarai* Inscription of *Bhāskara Ravivarman* (TAS, II, 49).

Place: Base of the front *Maṇḍapa* of the *Viṣṇu* temple at *Tirukkākkarai*. All-preserved.

Date: Fifty-eighth year of the King ; in this year Jupiter stood in the *Simha rāśi*.

Purpose: It informs us that *Kēraḷan Pōḷan* took up the *kārāṇmai* of certain lands for which he bound himself to burn a perpetual lamp (*nantāvilakku*) in the temple and to pay a certain quantity of paddy. *Devan-padan*, *Perumudiyan*, and the *Poduvāḷs* of *Tirukkākkarai* were appointed receivers of the above mentioned paddy. *Kārāḷan* (?) (the holder of the *kārāṇmai*), the men of the *padavaram* and the two families of *Poduvāḷs* should supervise the harvesting (*kaṇṇāniccu*) and pay the salary of the *mēlsānti emberumān*. The rest of the inscription is fragmentary ; at the end of the document are the signatures of a number of *Brāhmaṇa sādhus*.

Historical Interest: This inscription might belong to a second Bhāskara Ravivarman as supposed by the editor.

NO. 12

1. Svasti śrī [*] Kō-Pākkaraniravanmar tiruvaṭṭikku-c-cellāninra yāntu aimpattettāmāntu Cinnattil Viyālanninravāntu Cālāvēli Kēraḷam Pōlan koṇṭakārāṇmai ālum pūmi mēlum karrurutti cellum celavu [o] ru nantāvilakku kārālan celutta katan [v] Celutticcu koḷvāṇamaiññār Tirukkāḷkkarai tēvaruḷpāṭaṇu [m*] perumutiyaṇ potuvālu [m*]* Onpatināl onpatin nūrrāl n [ā] lu.....mitu kārālanu patavārammāki iraṇṭu kuṭi potuvālmā
2. rum kūti kaṇkāṇiccu mēlcānti em, perumāṇ civtamu [m*] ā [maiñci] ttu celuttak [ka] ṭavar* Itu kārālanāya Iravi Kōvinnum ... ce orō [tūñi] nellu.....yalca ... vā ... ti lakkuvipṇom...ḷḷikaivvaṭṭakaiyu [m*] vaccu a [ka] tteḷunnalli... ṭatu* Itariyūñ cātukka [!] Neytal Maññalattu Kēcavañkē ...
3. ...Mērumanaikkāṭ [tu Keyavanu] m [vaṇṭa] pāṭi Nārāyaṇa... kāṭṭa kaṭava...Kōvinna [Cā] tta [num] Kaṇṇaṇ Cēnnaṇu...

NO. 13. Tirukkāḷkkarai Inscription No. 1 of Bhāskara Ravivarman (TAS, II, p. 38 ff.)

Place: Tirukkāḷkkarai temple—Travancore State.

Date: 21st year opposite the second of the reign of Bhāskara Ravivarman.

Characters: Vatteḷuttu.

Purpose: Records certain gifts made to the temple by some private individuals for the burning of lamps during the Kārtigai month and for making offerings to the deity.

Historical Interest: Śrī Vaiṣavas were visiting these pādālperra sthālam in the medieval period. (This temple was one of the 13 divyadēśams in Malaināḍu.)

NO. 13

1. Svasti Śrī [||*] Kō-Pākkaraniravivanmma tiruvaṭṭikku-c-cellāninra yāntu iraṇṭāmāṇṭaikketi [riru] pattōrāmāntu Makarattil Viyā [la] nninra [Mi] -
2. riccika ṇāyiru ēlucenraṇāl-t-Tirukkāḷkkarai tēvaruḷpāṭaṇum perumutiya [nu] muṭaiya paḷa [ñ] kāṇi [-yo] ṇpatu aṇṇūru-ayṇkaḷaiñṇu māttupponkoṇṭi. mato?.....

3. *paiyūr Tuppanārāyaṇaṇum Tuppankiriṭṭaṇum paṇṇi[ru*] ṇ-
kal[ai] ṇṇiṇuṇ-Karikkāttupāttattil netuṇ[ka*] riyum Kanna
..... ṇṇalkkolla kūrūpatiyum vata-*
4. *vāyakamum Kollarceriyavar [ka*] lūtai-t-tēṭiyaparampinpalli
ppolukkayum Makkalluvarulūm pātiyum [pā]ti[yu],
i-v-ūrum paṇaiyamāy Viri-*
5. *ccika ṇāyirru Avittattināl tevar tirumataippalli nāliyāl nūrru-
nli-c-ceytari ucciyakattu paṇtirāṭiyiṇ munna [m*] koṇṭuvantu
palakaitta-*
6. *lai alakka kaṭaviyan Tuppanārāyaṇaṇun Tuppankiriṭṭaṇum
[||*] I-v-ariyāl pātiyuntiruvamirtu cevitu [||*] pāti[yum]
Cirivayinṇavar koṇṭu pakuttu koṭyittu [||*] I-c-celavu.*
7. *muttukilaratti ce[lu]ttu [vitu] [||*] I-c-celavu amaiccēn Vallattu-
p-Pōlan-Nārāṇa [n] [||*] I-p-pariyariyum cātukkaḷ Palli-
purattu Iravi Kōkkōtaiyaum [Pa]ṭai [yo] lukan (?)*
8. *Tilanārāyaṇaṇ-Kannaṇumarivar [||*] Velliyaṇpalli Cāttai-
Kumaraṇun Netuṇṇolli-k-Kālan Kōvinnanum-arivar [||*]
Ivakaḷariya-k-Kuriccuvaiccarivēn Peru.*

9. (This line is built in.)

Line	Text	Variation
4	<i>i-vūrum</i>	<i>ivvārum</i>
5	<i>koṇṭuvantu</i>	<i>koṇṭuvannu</i>
7	<i>amaiccēn</i>	<i>amaiccōr</i> (suggested by the Ed.)
7	<i>Vallattu-p-Pōlan</i> etc.	<i>Vallattu Pōlan</i> etc.
7	<i>Pallipurattu</i>	<i>Pallippurattu</i>
7	<i>[Pa]ṭai [yo] lukan (?)</i>	<i>Paṭaiyoluni</i>

NO. 14. *Tirukkāṭṭāṇam* Inscription No. III of the 26th year of Bhāskara Ravivarman (TAS, V, p. 179)

Place: South wall of the central shrine of the Viṣṇu temple at *Tirukkāṭṭāṇam*.

Date: 24th year opposite the second year of the reign of Bhāskara Ravivarman. The 26th year corresponds to A. C. 1010 according to the editor of the inscription.

Purpose: The epigraph states that the parishad, the *gaṇa*, and the *poduvāl* of the temple at *Tirukkāṭṭāṇam* met together and ordered that the holdings of the drummers (*koṭṭikaḷ*) shall not be

taken up for cultivation or mortgage by the *kōyiluḍaiyār*, the supervisors of the temple, and that those who transgress this condition shall be punished by fines payable to the governor of the district and to the village chief.

Historical Interest: *Gōvardhana Mārttāṇḍavarman* who was the governor of *Vēṇādu* was administering *Nanrūlainādu* as well in the 26th year of *Bhāskara Ravivarman*. From No. 56 of TAS Vol. V (p. 176 ff., *Tirukkāḍittānam* Inscription of *Bhāskara Ravivarman*) it is learnt that *Nanrūlainādu* was added to the administrative jurisdiction of *Gōvardhana Mārttāṇḍa* about twelve years previously, in the 12th year opposite the 2nd year of the reign of the same suzerain, *Bhāskara Ravivarman*. From this, and from the Cochin-Plate it follows that *Vēṇādu* was ruled by *Gōvardhana Mārttāṇḍa Varman* at least between *Kollam* 167 and 191.

1. *Svasti śrī* [||*] *Ko-Pārkarāṇiravivarman tiruvaṭikku-c-cell-āninra yāntiraṇṇinetir irupattunālāmāntu Venātutaiya Kovarttana Mā[rt]tāṇṭan Nanrulanātu vāḷa-t- [Tirukkati] ttānattu*
2. *paritaiyūṇ kaṇattārum potuvālmāru[m*] Nanrulanā[t*]tu munṇūrruvarum paṇi ceykinra Neṭumpurattu Kunraṇ-kovintanum [U]mamanra-tt- Iravi-y-Irāmanuṇ-kūṭi.....Kaccamāvitu [||*] Tirukkatittānattu*
3. *tirukkoyilutaiyāruṇ kottikaḷutaiya virutti orri kollavum avai-y-ulaḷu ulaḷum perār [||*] ūrālarum itaiyitarum ,otu-āḷum orriko[ḷumavan] yumavan nāṭuvāḷumavarkku i-*
4. *rupattu nār-k-kaḷaiṇnum vāḷkkai utaiyavarkku pantiru kaḷaiṇnu ponnu -n-taṇṭa-p-paṭuvitu [||*] avanṅku pāṭu tāṅkumavanum ittaṇṭame paṭuvitu [||*] paṇimāṇiṭam orri utaiyitu kūṭiyiru kūṭi kku vātic-.*
5. *corkku ulaḷaṭuttu kollakkaṭavar [||*] atu vilakkumavarḷumi -t- taṇṭame paṭuvitu [||*] paṇimāṇiṭattai pullikiḷ-amaṇṇa-vaṇname kaṇattāruṇ cānti ceyyumavaralūṇ kaṇtukolḷitu [||*] Uvaccakaḷ eḷutitu [||*].*

NO. 15. *Tirukkāḍittānam* Inscription of *Bhāskara Ravivarman*
(TAS, V, p. 190)

Place: The temple at *Tirukkāḍittānam*.

Date: 1 + year? (The date is not clear. It may belong to the 49th year as well. In TAS, II, p. 45 where the inscription is

published in a more fragmentary form the date is given as the 47th year opposite to the year of the reign).

Characters : *Vaṭṭeluttu*.

Purpose : Records the gift of a piece of land which *Iyakkan Gōvindan* of *Kulakkādu* made to the God (*Bhaṭāra*) at *Tirukkāḍittānam* for the expense of feeding twelve Brahmans in the temple and for 12 *nāḷi* of offerings on new-moon days. The donation was made on the auspicious day of (*Chittrai*) *Viṣu*.

Historical Interest : It is noteworthy that the year of opposition is mentioned as the first and not the second year, as is usual in the *Bhāskara Ravivarman* records.

15. *Svasti śrī* [||*] *Ko-p-Pārṅkara-Iravivarmmar tiruvaṭṭikku-c-cellāninra*¹ *-m-āṇṭaikkettirāmāṇṭu nālppattettum cenra Tulāttil Viyāḷan ninra* [Citti] *rai Viḷuvinaḷ Tiruukkaṭittāṇ-attu Paḷārarkku Muḷakkāṭṭu Iyakkañ-Kovinna amaicca celvāvitu* [||*] *Oru [na]ntāvilakkum pantiruvār Amā-vātināl pantirunāḷi tiru amirtum i-c-celavin* *yil. [Viḷā] kāppavaraliṭai nālāyirattennūru parai nellinu* [tā] *n [a]ḷi[tina] nā [nūrru] -k-kalam nilamum taraiyūm Pālārarkku aṭṭi koṭuttān Iyakkañ-Kovinnan* [||*] *I-c-celavu runūrru celutta*²

NO. 16. *Tirukkākkarai* Inscription No. 4 of *Bhāskara Ravivarman*.
(TAS, II, p. 47.)

Place : Engraved on the base of the front *maṇḍapa* of the *Viṣṇu* temple at *Tirukkākkarai*.

Date : Second year opposite the year forty-five ; (the portion containing the odd year is damaged and therefore cannot be read with certainty) ; in this year Jupiter was in the *Mina Rāśi*.

Characters : *Vaṭṭeluttu*.

Purpose : The inscription records that *Gōvindan Kunrappōḷan* of *Kuvalayāni* gave to the temple at *Tirukkākkarai* forty *Kaḷaṇṇjus* of

1. It is possible that the syllables *iraṇṭā* may have been omitted here.—Ed.

2. The record stops here abruptly—Ed.

gold which was received by *Puraiyan* of *Nediyatali*, on certain specified conditions.

1. *Svasti Śrī* [*||**] *kō-p-Pākkarani*[*ravivanma tiruvaṭikku cel*]
lāni [*n*]*ra yāntu nālppat-taiññāmāntaikkētir irantāmāntu*
Minattil Viyālannirka-c-ceyta karuma-m-āvatu [*||**] *Kuvalāyini-k-Kōvinnañ-Kunrappōlanuṭai nālppatiṅkalaiñcu pon*
ko[n]ṭu Neṭiyatali-p-Puraiyañ Kālkkarai i-p-ponninu
2. [*t*]*āñ nēṭikkōṇṭa ka kka nacālai* [*vā?*] *rka mānāṭu* [*Ā*] *lakkāṭu-m-avarriṇu paṭum vayalum karaiyum*
koṇṭu Tirukkāl [*k**] *karai Paṭṭāra* [*kar*] *kku-p-pani Pūrā-ṭantuṭaṅki Ōṇattalavum munnānāliyaḷ nūrru nāli-c-ceytari-*
yum munnā [*nā*] *liyaḷ irunāli-c-ceytu neyyuṅkoṇṭu akattu*
pannirāṭiyil mu[n]-vannu tiruvamirtu ceyviccu pātiyuṅkoṇṭu
Pi-
3. *rāmmaṇaruñ-Cirivañṇavaraiy* [*m**] *amirtu ceyviccu marru*
ari-m-munnānāliyaḷ Emperumakkaḷṅku irupattu nānāliyum
pallittāmattinu arunā [*li*] *yun- tiruvalakiṇu aru nāliyum*
Pirāmaṇar amurtiṇu teññā-y-irupattunālu uppu iṭaṅkalīyaḷ
nāliyuri puli arupalam Pūtapalikkū nāli itinnu vēntu-m-ilaiyum
viraku-
4. *Catayattinnāl iranṭu a.*

10th: (1) KAVIYŪR INSCRIPTION OF KALI 4051 (TAS, V, p. 7).

1. *Svasti Śrī ** *Kaliyukantutaṅki nālāyirat* [*tu**] *ampattorāmāntu*
Tirukkaviyūr Paṭṭāraka [*r**] *kkū Makilañceri-t-Tevan-Cennan*
Tiruvilakkun-tiruvamirutun-tiruvakkiramun-tiruccannanam-
un-tiruppukaiyu-m-amaccān [*||**] *Vilakkinukku uri ney yum*
irunāli arit-tiruvamirtum pukaiyaramanniṇār celvitu [*||**]
Tevan-Cennamaicca kārālarār celitticcu kolla-k-kata-
viyar [*||**].
2. *Ūrāla Cennanṅkari tiruvakkirattinnu kuṭikūru cantanattinnu*
pukaikku Cīrupunayīltalai Cāttan kūru amaiccān [*||**] *Mūli-*
kkalattu kaccattoṭokkum [*||**].

10th: (2) KAVIYŪR INSCRIPTION OF KALI 4052 (TAS, V, p. 6).

1. *Svasti Śrī* [*||**] *Kaliyukam tuṭaṅki nālāyirattu aympattirāmāntu*
Kaviyūr ūrār avirotatāl mukkālvattattu-k-kūti koylumulli-
rukka Maññalattu Nārāyaṇaṅ-Keyavaṇ Kitāṅkuparāḷul

Tilatamaññalattoṭiyum Eṭṭikkariyil āṇpatin kalamuñ koṭuttān
 [I*] *Maññalattu Nārāyaṇaṇ-Kirittan koṭutta pūmi Kumāra-*
kkorakkari nūrrukalamum Īrai Ilākai 'netṭoṭiyil nālonrum
Īraikku [Ilā]ttūkku,¹ avakaliṭai-k-konṭa aimpatiṇ kalamum
Tirukkaviyūr-t-tevārkku iraṇṭu nantāvilakkum akattu panti-
raṭikku nānāḷiyari tiruvamirtum uccikku nāḷiyari tiruvakkira-
m-iraṇṭu kalamu-m-ippūmiyāl-iruvaram

2. *amaiccār [I*] Iccelavum iccelaviṇukku amaicca pūmiyum vila-*
kka-p-perār [I] Vilakku-m-ūrālār vevverru vakaiyāl Peru-*
mālkku aimpattiru kalaiñcu poṇ taṇṭappatuṇvatu [I] Nātuvālu-*
mavarkku irupattaiṇ kalaiñcu poṇ taṇṭappatuṇvatu [I] Tāna-*
mum Parataiyum -m-ūrāṇ(m)maikku-m-itaivyitūṇ -keṭṭu
Mūlikkalattoḷukkappaṭi kaccam pīlaccārāvatu [I] Vilak-*
kumavakalṭkanupantam paraiyumavakalum ittaṇṭame paṭu-
vatu [I] Urāraviroṭattāl-k-kūtiyu-m-iccelavu mārronriṇu-*
ukku celuttikka-p-perār [I] 'Iccelavellā -m-oṭṭitṭeyakālattu*
celuttākkāl mutṭiratti celutta-k-kaṭaviyar² [I] Ippūmi ellām*
Uḷavumañkalattavakal tantatiyil muttoriruvaram Ciraikkara-
iyil mūttavanuṇ-kūti atuttu palam mukkālvattattu koṭup-

3. *pikka-k-kaṭaviyar [I*].*

10th: (3) Māmballi Plate of Srīvallabhañkōtai dated in Kollam 149

(TAS, IV, pp. 9-10).

FIRST SIDE

1. *Svasti śrī [I*] Kollantonri nūrrunārpattonpatāmāṇṭu Tulā-*
2. *ttuḷ Viyāḷa[n*] ninra Miriccika ṇāyirru ṇāyirāṇṭa-*
3. *Accuṇvati innālāl Kollattu Panaiñkāvin koyilu ḷuya-*
4. *riya koṭṭilul Tiruccenkunrūr-p-Paruṭaipperumakkal kūṭṭa-*
5. *ṇkūṭi iruntaruḷiyēṭattu vaiccu Tirukkalaipayuratt-Āticcaṇu-*
maiyaṁmai
6. *Ayururir piratiṭṭai ceyta Paṭṭārakariyum Paṭṭārakarkkolla*
pūmiyum Āti-
7. *ccaṇumaiyaṁmaikku nroṭṭi-k-koṭuttān Veṇāṭuṭaiya Śrī*
Vallapañkotai [I] Ātic-*

1. & 2. The portions between inverted commas are engraved separately below the inscription. They are tentatively inserted here.—Ed.

8. *caṇumaiyammai tāṇaṭṭirperu koṇṭatu Tiruccenṅkunrūr-p-Paṭṭāraka-*
9. *rkku kiḷitāy-c-Cirrūr nataiyotukūta nānāli-c-ceytari tiruivamuti*
10. *ṇukkum onpatināli-p-paraiyāl irunūru parai-c-ceytu nel āṇṭu-*
11. *varai koṭuppitāka-p-Potuvāl kaiyvil niroṭaṭṭi-k-koṭuttāl [||*]*
Ayurūr mu-
12. *kkāl vattamum Paṭṭāra[r*]kkolla itaiyiṭum rakṣiccu koṭuttu*
rakṣāpōkaṇ-
13. *kolla-k-kaṭaviyar Pctuvālmār [||*] Ipparicu ceyta kiḷittil Ūrā-*
ḷāraka I-
14. *ṭaiyiṭāraka pukku vilakkavum voruḷ kavaravum perār [||*]*
Itanai pinonru

SECOND SIDE

15. *ceyyumavan vevverruvakai-c-Cirrūrnatai-t-taṇṭam irunūrru-*
k-kaḷaiṇcu
16. *pon taṇṭappata-k-kaṭaviyan [||*] Avanṅku pātutāṅkumavanum*
ippari-
17. *ce taṇṭappaṭuvitu [||*] Ipparicu mercollappaṭṭa Ayurur*
mukkā-
18. *lvattamum Paṭṭārakarkolla itaiyiṭuṇ Śrī Vallapaṅkotaiyuṭai*
19. *Āticcaṇumaiyammai aṭṭipperu koṇṭatu Śrī Vallapaṅko aiyuṭa-*
20. *ṇirukka-t-Tiruccenṅkunrūr-p-Paṭṭārakarkku kiḷitāka aṭṭiye-*
21. *ṭattariyuṇ cātukkaḷ [|*] Muruṇṇaiyūr-t-Tevam-Pavittiran*
nāṇumarī-
22. *van [|*] Itaiyāmaṇattu Caṇṇaraṇ-Kaṇṭaṇ nāṇumarivan [|*]*
Maṇalmūkkīṇ
23. *Kaṇṭaṇ-Tāmotaraṇ nāṇumarivan [|*] Venāṭṭi[n]ku atikāra-*
ṇceyki-
24. *nra Punalūr Iravi-Parantavan nāṇumarivan [|*] Kuṭakoṭṭūr-*
p-Paran-
25. *tavaṇ-Kaṇṭaṇ nāṇumarivan[||*] Ivai Tiruccenṅkunrūr-p-Potuvā-*
26. *! Cāṭṭaṇ -Caṭaiyan-eḷuttu [||*]*

List of important Additions and Corrections

- Page 158, *Add at the end of the paragraph continued from the previous page:* Also we have not taken into account the Taḷi inscription dated in the eleventh year opposite the second year of the reign of 'Ko-Srī-Prākka-raṇiravi' (TAS, VIII, p. 40), although it may very well belong to Bhāskara Ravivarman as has been presumed by scholars.
- „ „ para 2, *For in A. C. 978 read in or after A. C. 978, in the last quarter of the tenth century.*
- „ „ para 3, *For seventh read seventeenth.*
- „ 160, para 1, *For p. xx read p. xx, and also p. 79. The last sentence of the paragraph should be:* Since his evidence is a very slender palæographic peculiarity and since it is dangerous to speculate about the nature of the spoken language of the past more than the actual investigation of the present living speech would warrant, we cannot set any store by this opinion, etc.
- „ 164, line 4, *For paṇṇirbbar read pannirbbar.*
Line 3 from below, *For Malayam read Malayāḷam.*
- „ 166, line 8 from below, *For Nageyabbeāl read Nagiya-bbegal.*
- „ 167, last para, *For the earliest dated inscription read the earliest definitely dated inscription available. (If the Kali year 4030 in the Taḷi inscription published on p. 45 of TAS, vol. VIII, has been correctly read, that is, of course, earlier than the Kaviyūr inscription of Kali year 4051.)*
- „ 170, *For the heading -ar, rnār read -ar,-mār and put it before 'paraṭaiyār'.*
- „ 173, line 1, *For dialectical read dialectal.*
Line 11 from below, *For Paṭcararkku read Paṭārarkku*

Page 174, line 8. *For* Vilatekumavakaḷku *read* vilakkumavakaḷku *for* Pattārakarkku *read* Paṭṭarakarkku.

„ 175, *Under Ablative Case delete the following:* In the following sentence the instrumental is used with an ablative (or genitive) force:

„ 179, last para, *For* Ālakkāṭu-m-avarrinupatum 'Ālak-kūṭu and that which is included in them' *read* Ālakkāṭu-m-avarrinupatum vayaluṅkaraiyuṅkoṇṭu 'Ālak-kāṭu and the fields and lands included in it' (16).

„ 180, line 4 from below, *For* ittilu 'thus much' (<ittirai (?) <ittanai) *read* ittinai 'this much' (ittirai (?) <ittanai)

„ 181, line 2, *For* ittilu *read* ittinai; *for* ittilumuḷlatu *read* ittinaiikkumuḷlatu.

„ 184, line 12, *For* iv, ai *read* ivai.

„ 197, 5 from below, *For* koṭāṭalikil *read* koṭāṭolilikil.

„ 198, *For* Examples of Verbal Participles used absolutely *read* Examples of Infinitives used absolutely.

„ 202, *Under Conjunctive Suffixes in B. R. add:* -āka...-āka (either ... or) *and insert in its proper place the following example:* ivvūr kattu ūrālarāka kōyilmaṇuḷaccērāka cētum ceyyum vilakkumavakaḷ 'If either the ūralars or kōyilmaṇuḷaccēr should cause any loss or obstruction,' etc.

„ 209, line 7, *For* thirteenth *read* fifteenth.

The following corrections made by the Editor of TAS vol. II were inadvertently omitted in our press-copy of the Inscription No. 3.

Text-line 3. *For* nantā *read* nan(ta)tā; *and for* pātiyumappiyai *read* pātiyumayppiyai.

„ 4, *For* ittilumuḷlatu *read* ittanaiikkumuḷlatu.

„ 5, *For* atināl *read* atanil; *and for* koṭukkapperāra-varāk *read* kaṭukkappaṭṭōravārāka.

[Although this makes better sense, the formation of the latters *-p-paṭṭō* makes this a rather strained reading; also we have preferred to retain the reading *avarā-k-kaṭavappon.*]

Text-line 6, *Alter the cē in pannirukaḷaṇcē into nē. For pātu-tāṇṇimavaraiyu mavaumi read pāṭutāṇṇippaṭai-yumavarumit..*

„ 7, *For muṭṭimavar read muṭṭikkumavar.*
[The rest of the corrections suggested by us are our own.]

[illegible]

Grantha: swara = swara; prithi = prithi; naksh = naksh. ra = ra

Vatteluttu alphabet in the Tirunelli Grant of Bhāskara Ravivarmān.

செய்து Tamil	k	n	c	ñ	t	ṭ	ṇ	t	n	p	m	y	r	l	v	ḷ	!	ṛ	ṡ
அ	க	ந	ச	ஞ	த	ட	ண	த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந		ஞ				த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
இ	க	ந	சு		ட	ண	ப	த	ந				ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந			ட	ண											!	ṛ	ṡ
ஊ	க	ந	சு	ஞ	த		ண	த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந		ஞ													!	ṛ	ṡ
ஊ	க	ந	சு					த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந															!	ṛ	ṡ
ஊ	க	ந	சு	ஞ	த		ண	த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந															!	ṛ	ṡ
ஊ	க	ந	சு	ஞ	த		ண	த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந															!	ṛ	ṡ
ஊ	க	ந	சு	ஞ	த		ண	த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந															!	ṛ	ṡ
ஊ	க	ந	சு	ஞ	த		ண	த	ந	ப	ம	ய	ர	ல	வ	ழ	!	ṛ	ṡ
ஊ	க	ந															!	ṛ	ṡ

Grahaṇa vyavasthā . Small one

MAP OF KERALA
 SHOWING
 THE DISTRIBUTION OF
THE BHĀSKARA RAVIVARMAN INSCRIPTIONS.

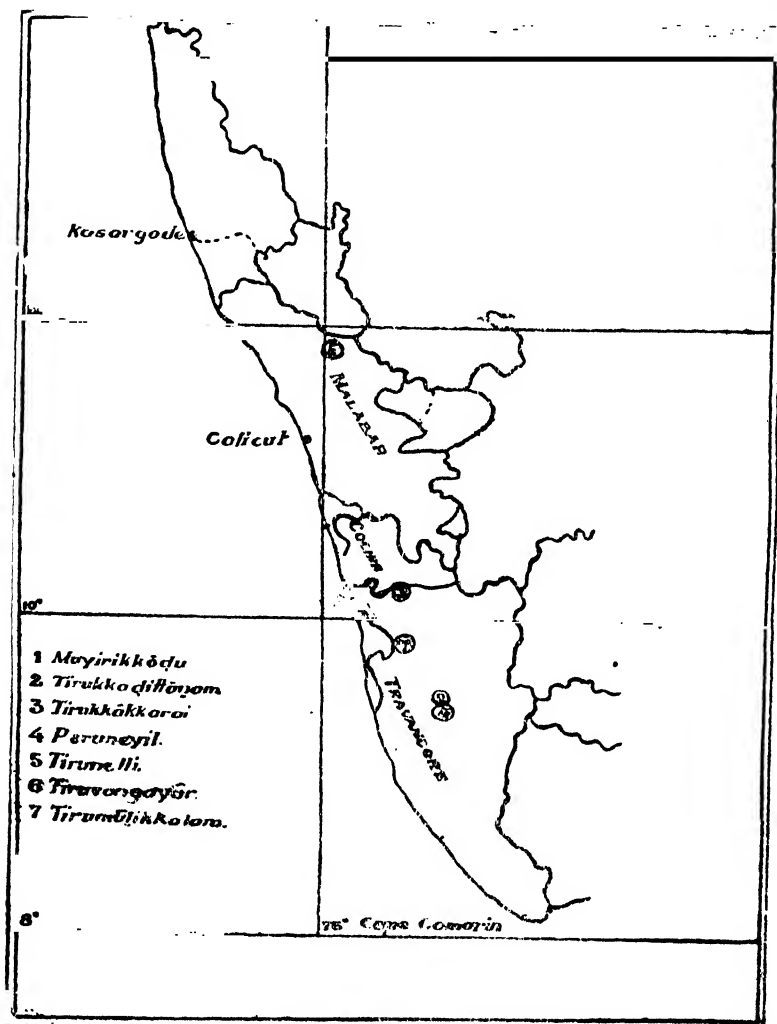


PLATE III

A PHYSICO-PHYSIOLOGICAL THEORY OF SYLLABLES IN HUMAN SPEECH

By

C. R. SANKARAN & S. SOURIRAJAN

Presented for reading at the Physiology section of the 33rd session of the Indian Science Congress on the 3rd of January 1946 at Bangalore.

[*Abstract* :—This paper makes a comprehensive enunciation of a new syllable theory of ours on Physico-Physiological basis. The unsatisfactory character of the previous theories regarding syllable-movement in human speech, upheld by the other scientists, is shown and the scientific utility of our theory is stressed. The validity of the theory is tested and proved by experimental findings.]

Many of the linguistic phenomena depend upon syllabic conditions. So far no satisfactory theory of syllabification¹ in *entirety* has been given expression to by any scientist. No doubt various theories have been propounded, each of them being only partially true. We will rapidly discuss a few of these theories at first.

The *stress theory*^{1a} is unsatisfactory; for, experimentally, respiration waves do not always correspond to the existing number of syllables. The *sonority theory*² is unsatisfactory because the application of this principle often results in more number of syllables than are normally expected. It often happens that expiration is considered as a secondary principle by the upholders of this theory, and the relative sonority of sounds itself is something very subjective. The theory of *buccal-opening and closing procedures*³ is open almost to the same objections as the *sonority theory*. The 'fiction' theory of syllabification⁴ which denies a physical basis must be considered as a mere make-shift in the absence of a satisfactory rationale by which the phenomenon could be explained. That a syllable is but a metrical phenomenon⁵ is too vague an explanation. The theory that a syllable corresponds to a *rhythmic unit* of speech⁶ begs the question. That the essence of a syllable is to be found in the *muscular tension of the larynx*⁷ cannot be accepted because the movements of the larynx do not exactly reflect the movement of the lips, but they are strongly influenced by the character of the vowel.⁸ None of the above theories explains diphthongs^{8a} and the phenomenon of the doubling of the consonants.⁹

Syllables form the shortest groups of speech-forms. Each syllable gives the impression of an unity with a centre of attention, or accumulation of articulatory energy. Such an energetic group is no doubt a rhythmic group as well. A satisfactory theory of syllabification must be able to explain all these various characteristics and define the limits^{9a} of the syllable, its centre and the factors by which grouping is effected. The α - phoneme theory¹⁰ affords such a rational explanation.

Now consider the nature of the vowels. The unanalysability of a vowel-profile is shown by Scripture's equations¹¹

$$y = \frac{1}{\pi} \int_0^{\infty} d\omega \int_0^{\infty} dp \int_{\alpha}^{\beta} f(t') e^{-\omega p t'} \cos \omega(t-t') dt;$$

$$\omega = f\omega(t') \text{ and } p = fp(t').$$

Physically a vowel is defined as a sum of a number of decremental sinusoidal vibrations of the air, a particular vowel being characterised by particular values for amplitude (α), decrement (δ) frequency (ω), and the phase of the sinusoidal components (θ). A vowel-profile (P) of form (F) and duration (D) is expressed by¹²

$$P = f(F) = f(i) = f\left\{\sum a_i e^{-\delta_i x} \sin(\omega_i x + \theta_i)\right\}$$

where i implies the various elements that go to make up the *specific character*¹³ of the vowel. The above equations indicate an important property of vowels i. e. their *independent integral nature*, by which is meant their capability to undergo all changes that go to make up their specific character, independent of any other element.

It must be recognised that such an independent integral nature is the essential characteristic of a syllable. Hence a syllable may be defined as a *unit of speech*^{13a} consisting of one or more individual speech sounds such that the *unit* is one of *independent integral nature* i. e. the unit is capable of undergoing all changes in the properties that characterise it without the aid of, or interfering with other elements or group of elements.

From the above definition it is easily seen that a vowel is capable of being a syllable by itself^{13b}. Thus the self-syllable forming capacity is the prime characteristic of vowel nature. The same is not the case with regard to consonants; for, physico-phonetically consonants and vowels are opposite in character. Further it is seen from kymographic records that the length of a consonant C in any syllable of the type CV is constant irrespective of the nature of the vowel; also oscillographic records of syllables of the type CV show

the consonant nature as a single complicated curve with no repetition of similar wave-forms¹⁴. Hence consonant-nature cannot be expressed by equations analogous to those used for vowels. From the above it is possible to postulate an important characteristic of a consonant i. e. its *single-phonemic* occurrence in syllables of the type CV. These experimental results also point out that a consonant by itself is not one of independent integral nature and hence not capable of functioning as a syllable by itself.

Now consider the case when a consonant and a vowel or a vowel and a consonant (C-V or V-C) come together such that the net articulatory interval between the two speech components is zero. Now the entire configuration is a single unit with a Dedekindian gap and *continuity* is ensured by the construction of our α -phoneme. The α -phoneme continuity is one of independent integral nature. Hence we see how a CV or VC configuration can form a syllable,

Single phonemic nature of a consonant in a CV configuration has already been referred to. It must be remembered that in any CV configuration, the continuum of speech sounds is closed with the construction of the α -phoneme with the following limits:

Limit (C \propto V) = α - influence region.

Hence while the consonant can accommodate only one vowel, a vowel can accommodate two consonants provided, however, that the vowel length is sufficiently large. Thus a configuration C_1VC_2 is possible where V has a sufficient number of free profiles unaffected by the α -phoneme in the configurative type C_1V . It is thus seen how a type C_1VC_2 can form a syllable.

According to STETSON¹⁵ there is a physiological limit to the speed with which the consonants may be spoken, and as speech always tends towards high speed, the lengths of the consonants cluster toward the lower limit. Consequently only a small amount of energy is associated with each individual consonant¹⁶. But since that energy is associated with single phonemes, the duration or length of a single consonant-profile is longer than that of a single vowel-profile (sub-duration of vowel) i. e. $C_{pl} > V_{pl}$. However, in a CV configuration the vowel energy has been transformed into a syllable energy. Thus a consonant is benefited by an acquired energy in a syllable of the type CV. When two consonants C_1 and C_2 come together there cannot be any α -phoneme continuity. But they can be made to unite by overlapping C_1 on C_2 (or vice versa)

if C_2 is sufficiently strong to bear the strain. As individual consonants, both C_1 and C_2 are weak and hence such an overlapping is not possible. Consider a consonant C_1 and a configuration $C_2 V$. In this case C_1 may be made to overlap $C_2 V$ because of the acquired energy of C_2 . When C_1 is thus overlapped on $C_2 V$, the whole structure $C_1 C_2 V$ may be considered as a single syllabic unit. Thus it can be seen that a type $C_1 C_2 VC_3 C_4$ can form a syllable.

That such a consonant phonemic overlapping actually occurs in speech is proved even through kymographic records. The readings taken from representative records of the utterances of 'Great, Gate, and Rate' are given below to illustrate the overlapping of the initial two consonants in 'great' thereby resulting in an actual *speech-loss*.

PLATE I. Kymographic records of 'great, gate, rate' and the time curve. ($f = 100$).

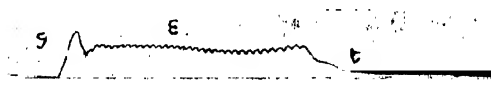


Fig. 1

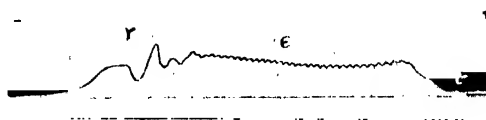


Fig. 2

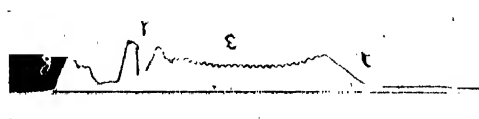


Fig. 3

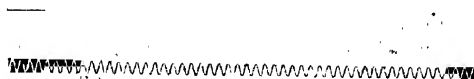


Fig. 4

$C_1 C_2 V$		Readings for $C_1 C_2 V$						Readings for $C_1 V$			
Length of C_1	Ht. of final total amplitude	Length of intermediate region	Ht. of final total amplitude	Length of C_2	Ht. of final total amplitude	Length of V	Ht. of final total amplitude	Length of C_1	Ht. of final total amplitude	Length of V	Ht. of final total amplitude
16.7	540	31.6	40.0	39.8	70.7	203.7	24.7	24.0	90.3	236.0	81.8

Note :—Only gre in gret (great) is considered here, and not the whole speech-form gret.
All the measurements are made in units of 0.01 mm.

Readings of $C_2 V$			Length of Vowel in			Amplitude changes in			Observations	
Length of C_2	Ht. of final total amplitude	Length of $C_1 + C_2$	Length of $C_1 C_2$	$(C_1 + C_2) - C_1 C_2$	$C_1 V$	$C_2 V$	$C_1 C_2 V$	$C_1 V$		$C_2 V$
81.8	63.1	250.0	63.0	105.8	88.1	17.7	203.7	236.0	250.0	54.0 → 90.3 → 63.1 → 40.0 → 81.8
										63.0 70.7 → 24.7

Note :—All the measurements are made in units of 0.01 mm.

(1) Reduction in the total consonant length due to overlapping is 17.7 unit. (2) Vowel length is decreased under overlapped condition of the consonant group.

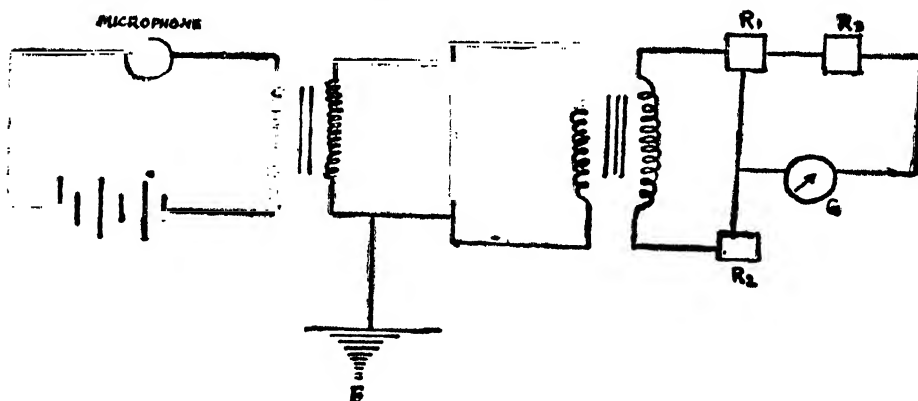
But it must be noted that a free vowel by itself being capable of forming a syllable becomes the first order of syllabification. The other types of syllables introduce successive amounts of restraint over the vowel nature and thereby weaken the *vowel-pre-dominance*. Hence we can distinguish the following decreasing orders of syllabification signifying their stability, tendency and strength.

Syllable type	Order of syllabification
V	First
CV or VC	Second
$C_1 V C_2$	Third
$C_1 C_2 V$	Fourth
$C_1 C_2 V C_3$	
$C_1 C_2 V C_3 C_4$ etc.	

Thus a new rationale of syllabification has been outlined above. It is very important to note that our theory emphasises the fact that between any two syllable there is actually an articulatory interval greater than zero.

The following experiment 17 done by us affords an easy method of verifying our theory:

PLATE II. Circuit diagram



A microphone is connected through a suitable transformer to the grid circuit of a low frequency amplifier, or to the pick up terminals of a radio-set. When spoken before the microphone the speech waves cause variations of the grid potential of the amplifier valve and this causes corresponding variations of the anode current.

This varying current output is passed on to a moving coil galvanometer (suitably damped) making use of a proper potential divider and the motion of the spot of light reflected from the mirror of the galvanometer is recorded photographically on an electrically driven rotating drum carrying a sensitive bromide paper. A number of words are uttered before the microphone. For each word a separate record is taken. Whenever there is a change in the anode current a kick in the motion of the spot of light is observed. It is easily seen that within a particular period the current through the galvanometer is due to the integrated effect of the source producing the current. Hence we may expect a kick in the motion of the spot of light at the beginning of each integral continuum. This is actually the case. At the beginning of each syllable, a kick in the path of the wave motion of the spot of light is observed.

Plate III The following four diagrams shows path of the wave-motion of the spot of light during utterance:—

- (1) 'Ability' uttered six times separately.



Fig. 1

- (2) 'Atmosphere' uttered six times separately.

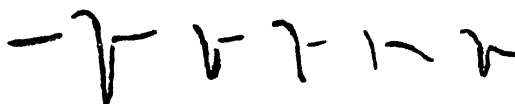


Fig. 2

- (3) 'Avan' uttered five times separately.



Fig. 3

- (4) 'r r r r r r' uttered six times separately.



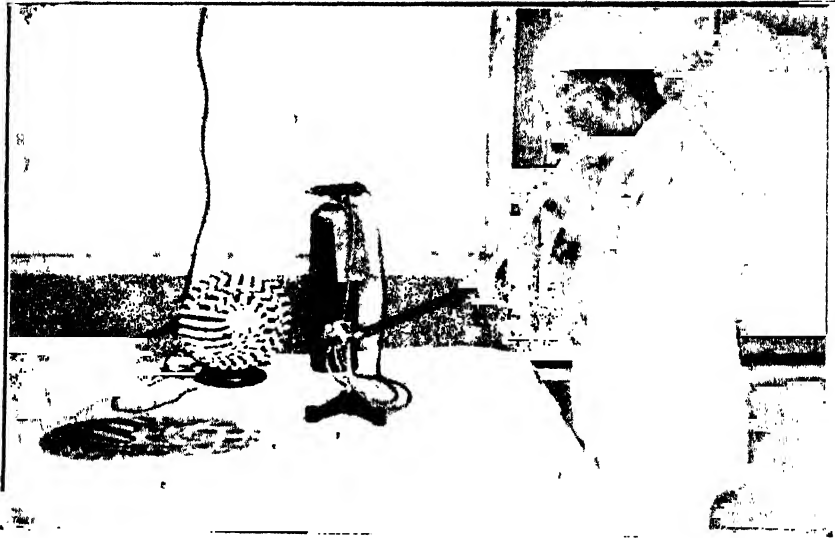
Fig. 4

The kicks in the wave motion of the spot of light for a complete word uttered in one breath represent the definite intensity variations at the respective intervals, the intensity-changes being so far separated as to enable the galvanometer to experience a separate impulse. From the records, it is found that if the independent integral continua are separated even by 0.1 second, a kick in the path of the spot of light occurs. This shows the *necessary* condition of the existence of an interval between any two syllables. It is only this interval between the syllables that gives the *syllabic impression* in speech. Naturally there cannot be any kick in the wave motion of the spot of light during the regions where the α -phoneme continuity exists. The experiment actually gives the number of syllables in the word and also their limits. The factors by which grouping is effected have already been discussed.

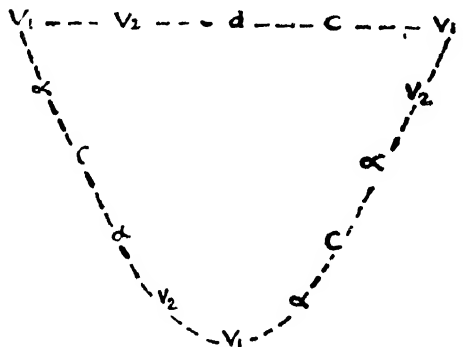
The work of Norwine and Murphy¹⁸ on the Characteristic Time intervals in Telephonic Conversations, is of high value in confirming the validity of our theory. Their recording equipment was so sensitive as to indicate a pause of even 0.005 second. Their oscillographic record (Fig. II (a) in their article) shows very clearly the time interval between any two syllables. Fig. II (d) in their paper is of special interest to us because it clearly exhibits the phenomenon of *phonemic overlapping*. That under such a phenomenon there is actually a loss of speech has been predicted theoretically and confirmed experimentally from kymographic records. The oscillographic records of Norwine and Murphy also demonstrate the phenomenon of phonemic overlapping as no lock-out resulted, contrary to expectation, under a negative response time; also the first part of the reply was inaudible as a result of the speech loss due to phonemic overlapping. These two scientists further point out that "sixty percent of the talk spurts contain no pauses and these comprise all the monosyllabic replies." Thus it is seen that monosyllabic words cannot have a pause even to the extent of 0.005 second. Hence the significance of the statement that a consonant and a vowel form a configuration (the α -phoneme continuity)^(18a) only when the articulatory interval between them is zero.

Strobilation :

PLATE IV



Now experiments with the strobilation show a single distinct pitch pattern for each syllable (and not *sound*) in speech. Abbott's¹⁹ method of tone centre determination when applied to syllable analysis affords a valuable means of evaluating the energy distribution in the syllable. The closed chain structure theory of a diphthong clearly explains its independent integral nature and hence offers no difficulty in syllable mechanism.



Simplest structure of a diphthong.

From what has been discussed above, it follows that what we generally apprehend as syllable is not merely a matter of the auditory impressions, but that a syllable is a physico-physiological

reality.²⁰ Our theory of syllabification, in addition to the explanation it provides for all the observed facts, reveals that every theory in the field^{20a} held by the others previously is only partially true. Further the rationale of syllabic division in the wake of our theory, opens up a new vista in regard to the problem of vowel length.

This will be evident from the following consideration. Let the limiting number of vowel-profiles affected by α -phoneme in a particular CV configuration be X. Consider the case of C_1VC_2 where

$$\binom{\alpha N}{C_1V} = X = \binom{\alpha N}{VC_2}$$

Now let the total number of vowel profiles be Y:

(i) As y increases, the free vowel length also increases not affecting the α -phoneme influence region. As y decreases, the vowel characteristic of the syllable goes on decreasing. Nevertheless C_1VC_2 remains a syllable.

(ii) Let $y = 2X$. Then there is no free vowel profile. Yet the *sufficient* conditions of a syllable are satisfied. This is therefore an instance of a limiting syllable having no perceptible vowel predominance.

(iii) Let $y < 2X$. Here there is actually an overlapping of the α -phoneme region which is however impossible as a stable unit. The limiting case will be that when $y = x$, when the construction is too unstable and active as a result of which the unit degenerates into a stabler *unit* or *units*, thus giving rise to completely new syllables. Thus we can envisage the evolution of a number of related types of syllables with a distinct common origin.²¹

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2. O. JESPERSEN, *Lehrbuch der Phonetik*, pp. 190 ff. 1932. J. FORCHHAMMER, *Kurze Einführung in die Deutsche und Allgemeine Sprachlautehre* (Phonetik) Heidelberg (1928), p. 78. Paul PASSY, *Petite Phonétique Comparée des Principales Langues Européennes*, Leipzig, Berlin (1922), p. 41.
3. DE SAUSSURE, *Cours de Linguistique Générale* (1916), pp. 79 and 89 ff; (1931), p. 77 and 86-90.
4. PANCONCELLI-CALZIA, *Die experimentelle Phonetik in ihrer Anwendung auf die Sprachwissenschaft* (1924), p. 23 and 119. SCRIPTURE, "Die Silbigkeit der silbe", *Archiv für das Studium der neueren Sprachen und Literaturen*, Vol. 152 (1927), pp. 74-75. SCRIPTURE, "Anwendung der Graphischen Methode auf sprache und Gesang", pp. 43-44, Leipzig (1927). See also GEMELLI-PASTORI, *L'Analisi elettroacustica del linguaggio*; 1, Milan, (1934), pp. 210 ff. See also A. GEMELLI, *Commentationes, Pont., Acad., Sci.*, 1, No. 1 (1937), pp. 1-43.
5. E. A. MEYER, *Die Silbe, Die neueren Sprachen*, VI (1898), I, pp. 1-37.
6. A. W. DE GROOT, "La Syllabe: Essai de Synthèse", *Bulletin de la Société de Linguistique de Paris*, XXVII (1927), pp. 1-42. According to GROOT, there is an alternative opening and closing of the organs of speech; there is a certain rhythm in the execution of these movements, since without much intervals we meet with the regular repetition of all the acts. "A part of the closures

and openings are reunited in certain groups: it is the rhythm of words in a pronounced phrase. Of the other part, each pair of movements composed of a closure and an opening become for internal differentiation a syllable." (Cf. L. KAISER, *Archives Néerlandaises Phonétique Expérimentale* I, (1927 p. 129). See also the discussion on accented and unaccented syllables by MENZERATH and LACERDA Koartikulation, Steuerung und Lautabgrenzung, *Phonetische Studien* (1935) pp. 31-32. See also Meriggi, IF, 53, p. 301, (1935).

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8. L.P.H. EJKMAN, Radiographie des kehlkopfs: *Fortschritte auf dem Gebiete der Röntgenstrahlen*, VII, (1904). Cf. also A. W. DE GROOT, Instrumental Phonetics, Its Value for Linguists, *Mededeelingen der Koninklijke Akademie van Wetenschappen, Afdeling Letterkunde*, -65, Serie No. 2, Amsterdam (1928), p. 68.
- 8a. A ROSETTI, Sur les causes de la Diphtongaison Spontanée, *Bulletin Linguistique*, VII, (1939), pp. 115-116. That the method of classifying diphthongs and triphthongs is purely arbitrary, is evident from Chiu BIEN MING's observation (The Tone Behaviour in Hagu: An Experimental Study, *Archives Néerlandaises de Phonétique Expérimentale*, VI (1931), p. 12. See also Jules RONJAT, "Accent Quantité et Diphtongaison en Roman et Ailleurs, BSL, 24, (1924) pp. 356-377. See also L. Kaiser, ANPE, XVIII (1942), pp. 29-40.
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teristic felt by the native speaker to constitute a given tone ? ' is attacked by Chiu Bien Ming, *op. cit.*, pp. 16 ff.

10. S. SOURIRAJAN and C. R. SANKARAN, The Utterance Continuum and the α -phoneme, *BDCRI*, VI, 2. 1944.
11. E. W. SCRIPTURE, *Nature*, 130 (1932) 275-276. Also " The Nature of the Vowels ", *Archives Néerlandaises de Phonétique Expérimentale*, VII (1932), pp. 64-70. It is needless to stress again that GEMELLI-PASTORI'S theory concerning the specific nature of a vowel-vibration is identical with SCRIPTURE'S profile theory. See *ANPE*, 12 (1936), p. 139.
12. E. W. SCRIPTURE, " The Nature of the Vowels ", *The Physical Society*, Report of a discussion on Audition held on June 19, 1931, at the Imperial College of Science, p.45.
13. S. SOURIRAJAN and C. R. SANKARAN, The Utterance Continuum and the α -phoneme Continuum. TO GEMELLI and PASTORI the specific nature of a vowel vibration is the result of a special complex of something (perhaps unknown?) to which they apply the term "specific character." The specific profile of the wave is the registration of the specific character. This view is identical with the view of Scripture according to whom the vibratory-bits are perceived as unanalysed profiles (see footnote 11). See *ANPE*, 12 (1936), p. 139.

"Sonorous intensity" may perhaps be also one factor that goes to constitute the "specific character." For a method of statistical analysis of "sonorous intensity" in speech see A. GEMELLI, and G. SACERDOTE, *Pont., Acad., Sci., Comm.*, 5, No. 9 (1941), pp. 569-603.

For the question of several variations of the phonic elements in speech see A. GEMELLI, *Archivio di Psicologia*, XVIII (1939), pp. 1-46.

- 13a. A syllable in our opinion is a perceivable unity and an acoustic reality even as GEMELLI argues that the phonema is a psychological unity. See A. GEMELLI, *Extrait de Acta Psychologica*, IV, 1, pp. 83-112, La-Haye-Martinus Nijhoff, 1938.

- 13b. This statement should not be confused with the view stated in books on popular phonetics that the vowel is to be counted the core of the syllable and that it is often to be identified with the syllable. cf. STETSON, *Motor Phonetics*, p. 38.
14. Alexander WOOD, *Acoustics*, (1940), pp. 352-53.
15. STETSON, *Motor Phonetics*, *Archives Néerlandaises de Phonétique Expérimentale*, III (1928), p. 80. Also J. YULE BOGUE and Dennis FRY, *Movements of the Tongue in Speech*, *Endeavour*, III, (1944) pp. 104-7. For STETSON'S Theory of syllable, see *ibid.* pp. 30, 155, 199. R. H. STETSON and C. V. HUDGINS, *Functions of the breathing movements in the mechanism of Speech*, *Archives Néerlandaises de Phonétique Expérimentale*, V, pp. 1-30, 1930. See also K. BÜHLER, *Sprachtheorie*, pp. 259 ff. (1934). STETSON in his study "Function of the breathing movements in the mechanism of speech" is led to the significant conclusion that the pulses which are recorded from the muscles of the abdomen and thorax are not due to a rise of air pressure in the chest when the articulatory organs close the vocal canal. This conclusion represents the finding of a physical basis for the entity of the syllable which Scripture has denied [*Anwendung der graphischen Methode*, 44 (1927)]. Cf. R. M. S. HEFFNER, *Language* Vol. 6, 1930, page 333. A. W. DE GROOT, *Archives Néerlandaises de Phonétique Expérimentale*, 17, pp. 28-41. 1941. E. Richter, *Der gegenwärtige stand der experimentellen Phonetik*, *Vox*, pp. 112 ff (1934).
16. I. B. CRANDALL, *The Sounds of Speech*, *Bell Telephone Laboratories*, November 1925, p. 4.
17. We are indebted to Dr. N. S. SUBBARAO, now of the Andhra University and Mr. S. SRIRAMAN, Physics Department of the Annamalai University, for their valuable help in conducting this experiment.
18. A. C. NORWINE and O. J. MURPHY, "Characteristic time intervals in telephonic conversation", *Bell System Technical Journal*, XVII (April 1938), p. 281.

- 18a C. f. "The temporal position of one experience as 'between' two others is frequently experienced, in the same way that the spatial 'betweenness' is. Now as far as it is experienced, time must have a functional correlate in underlying physiological processes no less than experienced space. Again, then, the temporal 'between' is correlated with a functional 'between' in the concrete dynamic context of physiological events. And if in this manner, we apply the principle throughout, we will arrive at the proposition that experienced order in time is a true representation of the corresponding concrete order in the underlying dynamical context". W. KÖHLER, *Gestalt Psycholog*., p. 49.
19. R. B. ABBOTT, Response Measurement and Harmonic Analysis of Violin Tones, *Journal of the Acoustical Society of America*, VII, (October 1935), pp. 111 ff.
20. Cf. In this connection R. M. S. HEFFNER, *Language*, VI, (1930), p. 202. See also footnote 13a above.
- 20a. An exhaustive bibliographical account is furnished by A. ROSETTI'S papers "Sur La Théorie de la Syllabe", *Bulletin Linguistique* III, 1935, pp. 5-14. Sur le problème de la Syllabe, *ibid*, IV, (1936), pp. 242-3. Attention in this connection must be specially drawn to Pierre DELATTRE, *Tendances de coupe syllabique en Français*, *Publications of the Modern Language Association of America*, 55, (1940) pp. 579-95.
21. We are much indebted to Professor S. M. KATRE, Director of our Institute, for his constant help and encouragement throughout our investigations. Our thanks are also due to the Librarian of our Institute for specially giving us very much the enjoyment of the inter-library loan facilities with the various research libraries all over the country, but for whose kind co-operation we would not have had access to many fundamental papers of other scientists in the field.

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gations based on the α - phoneme theory embodied in this paper.

Addition to *Footnote 8a*. See R. H. STETSON and F. L. FULLER, Diphthong Formation. A preliminary study, *Archives Néerlandaises de Phonétique Expérimentale* 5. 31-6 (1930). Compare also for an evaluation of this study. R. M. S. HEFFNER, *Language* 6, 1930. pp. 335-6.

REVIEW

Akbarasāhi-Śṛṅgāradarpaṇa of Padmasundara. Edited by K. Madhava Krishna SHARMA, Curator, Anup Sanskrit Library, Bikaner, 1943—Pp. i-xxxvii+46+60 :—

The volume under review forms the first number of the Ganga Oriental Series started and published under the authority of the Government of Bikaner. It is a work on Śṛṅgārarasa and was composed by a Jain author named Padmasundara who, as is evident from the title, was patronized by emperor Akbar. It is divided into four ullāsas, the first and second of which deal with the types of heroines, the third with the division of the śṛṅgārarasa and the fourth with the kinds of rasas other than the śṛṅgāra and is based on a single manuscript, readings from another manuscript being given separately.

In his Prefatory Note Dr. Kunhan RAJA gives some information regarding the Anup Sanskrit Library and remarks that the *Śṛṅgāradarpaṇa* closely follows the *Śṛṅgāratilaka* of Rudraṭa, an earlier work on the same subject. In the introduction the editor acquaints the reader with the manuscript material he made use of for his edition and gives the history of the author who belonged to the Nāgapurītapāgacche line of Jain priests.

There is also another work on the same subject viz. *Śṛṅgā-rasāñjivini* of Haridevamīśra, which is published as an appendix. This work is also based on a single manuscript and consists of about 100 verses. The notes on the *Śṛṅgāradarpaṇa* added at the end by Dr. K. RAJA and the verse-indices to the two works have enhanced the value of the edition. Dr. SHARMA has rendered valuable service to the cause of Sanskrit literature by bringing out the editions of the two works mentioned above and we trust that he will bring to light several unpublished Sanskrit works, manuscripts of which may be available in the Anup Sanskrit Library as also in other places.

M. M. PATKAR.
